

NEW



INSIDE HISTORY COLLECTION

Secrets of the ancient **EGYPTIANS**

ANTIQUITY'S
MOST POWERFUL
KINGDOM
GREW FROM NILE'S
FERTILE BANKS

Pharaoh's tomb:

Pyramid's inner mazes kept grave robbers at bay

Ramesses the Great:

Warrior, builder and father to over 100 children

Powerful rivals:

Priests threatened pharaoh's position

CHARIOTS:

Wheels gave Egypt a crucial edge in war

MUMMIES:

Embalming preserved the soul's resting place

HIEROGLYPHS:

Napoleon's men found the key



The background of the entire page is a photograph of two ancient Egyptian mummies standing side-by-side against a wall of cracked, dry mud. The mummy on the left is more clearly visible, wearing a dark, patterned garment. The mummy on the right is mostly white, possibly due to the material of the garment or the way it was preserved. The wall behind them is heavily textured with a network of fine cracks. The title 'SECRETS OF THE ANCIENT EGYPTIANS' is superimposed over the middle of the image in a large, white, serif font.

SECRETS OF THE ANCIENT EGYPTIANS

Jealousy drove Set, the god of chaos and disorder, to tear his brother Osiris's body to pieces and scatter the fragments throughout Egypt. However, the goddess Isis, Osiris's wife, found the pieces and embalmed the reformed corpse, binding it in linen. According to Egyptian mythology, this was the world's first mummy.

Embalming the dead to preserve the body for posterity became widespread in ancient Egypt, and both human and animal mummies have

fascinated people ever since. Powdered mummified remains were even used as medicines for all kinds of ailments.

The mummies of the poor were buried in the desert sands, but the pharaohs' mummies lay in magnificent sarcophagi inside giant pyramids, whose construction is still a mystery despite the wealth of hieroglyphic texts left by their creators. One thing is certain, however: they were created by a civilisation that was strong enough to flourish for more than 3,000 years.

CONTENTS



1. THE NILE PROVIDED EVERYTHING

Page 12 Egyptian civilisation was made possible because the Nile flooded the barren desert every year.



2. OBSESSED BY DEATH

Page 20 Death was not the end, but a transition to the afterlife. Therefore, the body and major organs had to be preserved using mummification.



3. EGYPT'S MIGHTY PYRAMIDS

Page 30 5,000 years ago, the first pyramid rose in the desert sands, but exactly how it was built remains a mystery.



6. SERVANTS OF THE GODS

Page 58 The most important role for a priest was to take care of the gods. But they were also doctors, tax collectors, and temple builders.



7. MILITARY SUPERPOWER

Page 66 A surprise invasion had far-reaching implications for Egypt's military. After the enemy was driven back, it created a large, modern army.



10. STRANGE SYMBOLS

Page 90 Hieroglyphs on tomb walls and on old papyrus sheets hid tales of everything from trade accounts and love poetry to magical books about death.



11. EGYPT IN THE BIBLE

Page 98 Hailstorms, swarms of locusts, and diseases were, according to the Old Testament, pharaoh's punishment for keeping the Israelites enslaved.





4. THE THREE KINGDOMS

Page 42 Three eras mark the zeniths of ancient Egyptian civilisation: the Old Kingdom, the Middle Kingdom, and the New Kingdom.



5. LIFE IN THE NILE VALLEY

Page 50 There was food for everyone in the fertile Nile Valley, and the Egyptians placed great emphasis on enjoying life to the full – including naked dancing.



8. RAMESSES THE GREAT

Page 74 During his 67 year-reign, Ramesses II left an enduring legacy: he defeated enemies, built huge monuments, and had over one hundred children.



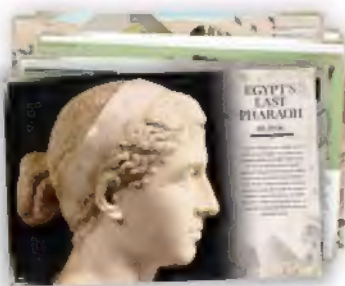
9. BATTLE OF KADESH

Page 82 Hittites and Egyptians clashed in chariots at the Syrian city of Kadesh. The battle would determine who controlled the region's trade.



12. ROYAL INCEST

Page 104 Stillborn children, insanity and necrosis were commonplace in the royal households, where the pharaoh happily married both his sisters and daughters.



13. EGYPT'S LAST PHARAOH

Page 112 Cleopatra attempted to recreate Egypt's glory by allying with the most powerful men of the time. But she backed the wrong Roman.

SECRETS OF THE ANCIENT EGYPTIANS

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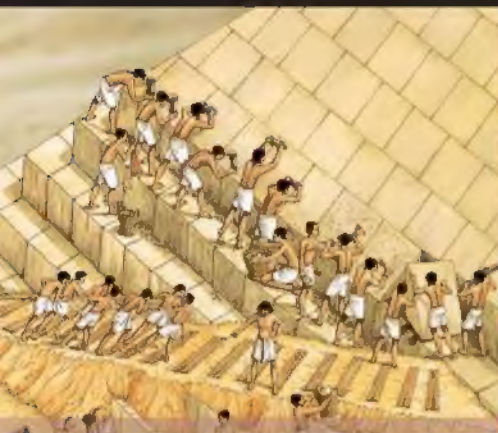
3600 BC // The area around the Nile Valley dries out



3400 BC // The first known hieroglyphs



2950 BC // Upper and Lower Egypt



2589 BC // Great Pyramid of Giza is built



Circa 2550 BC // Mummification gains ground



2160 BC // Civil war divides Egypt

3600-2055 BC

DROUGHT CREATES EGYPT

3600 BC During the 3000s BC, the life-giving rain disappears from Egypt. Landscapes that once abounded with life slowly become barren deserts, and the people of the area are squeezed closer together on the fertile soil along the Nile. Cities develop, and in time two states also grow up: in the river delta to the north lies Lower Egypt, while along the narrow Nile Valley to the south, powerful kings create Upper Egypt. Around the year 3000 BC, the two kingdoms face each other in a war – a mighty ruler from Upper Egypt wins, and unites the land into one kingdom. Egypt is born.

LAND OF PYRAMID BUILDERS

2667 BC When Pharaoh Djoser comes to power, he starts a tradition that today, more than anything else, symbolises ancient Egypt: he erects a giant, pyramid-shaped tombstone in memory of himself. Later pharaohs refine the technique, and in 2566 BC, the body of Pharaoh Khufu is laid in the largest pyramid of all: the 146.5-metre-high Great Pyramid. Even today, the triangular monument towers over Giza in contemporary Egypt, testament to the nation's power and might in its first golden age – the period from 2686 to 2160 BC, which Egyptologists now call the Old Kingdom.



unite as one



Circa 2667 BC // Pharaoh Djoser builds the first pyramid



2055 BC // Mentuhotep unites the kingdom



OLD KINGDOM COLLAPSES

2160 BC

After a series of failed Nile floods, Egypt is

hit by famine and economic downturn at the end of Pharaoh Pepi II's lengthy reign. The weak ruler is unable solve the crisis and loses power to local officials. When Pepi II dies, his successors fail to hold the kingdom together. Egypt is thrown into civil war and splits into several, competing kingdoms. A later papyrus describes the chaos that followed: "The bowman is ready. The wrongdoer is everywhere ... A man goes out to plough with his shield ... The robber is a possessor of riches."

HARMONY IS RESTORED

2055 BC

For more than 100 years, the city-states of Thebes

and Heracleopolis fight for power in divided Egypt, before one of them produces someone who can unite the kingdom. He's called Mentuhotep, named after Montu, the god of war. Mentuhotep ascends to the throne in 2055 BC, and 14 years later is ready to defeat his arch-enemies in Heracleopolis. An invincible army marches north, conquers Heracleopolis, burns the burial ground, and installs one of Mentuhotep's faithful men as the city's leader. Mentuhotep is now the sole ruler of Egypt. A glorious new era, the Middle Kingdom, has begun.



Circa 1950 BC // First temple is constructed at Karnak



Circa 1550 BC // Valley of the Kings is pharaohs' new burial ground



1274 BC // The Battle of Kadesh against the Hittites



1213 BC // Ramesses the Great dies after almost 67 years in power

1831-1166 BC

NEW LAND IS GAINED

1831 BC

The peak of Egypt's heyday, which

Egyptologists today call the Middle Kingdom, occurs under Pharaoh Amenemhat III. During his reign, from 1831 to 1786 BC, the Egyptians undertake a large-scale engineering project, clearing the mud from the river that flows into the lake at Fayum Oasis. This brings the lake level with the Nile, so the water level drops. The result is 62,200 hectares of new agricultural land for Egypt's farmers. The Fayum Oasis soon becomes known as one of the most fertile areas in all of Egypt and later supplies Rome.

CHAOS REIGNS AGAIN

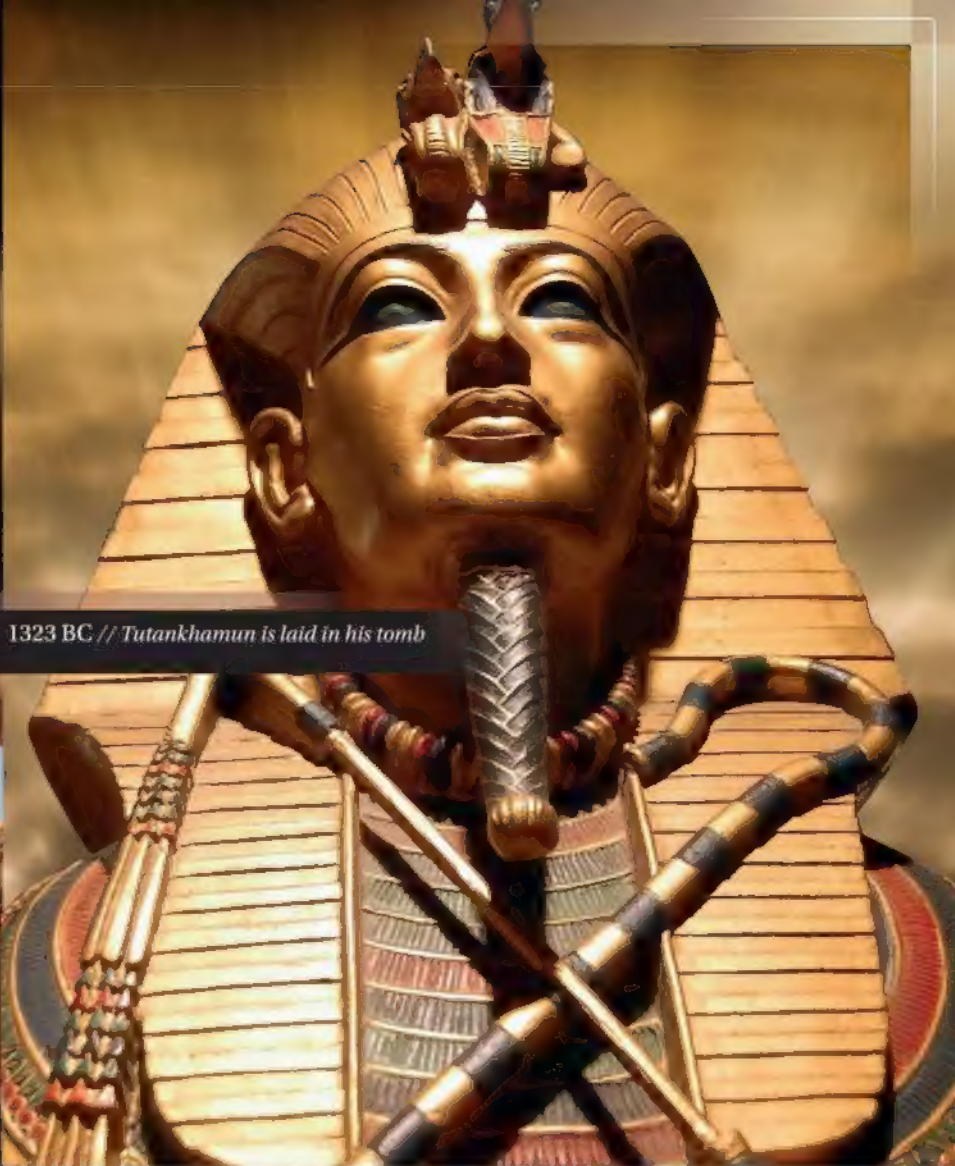
1650 BC

The mighty pharaohs of the Middle

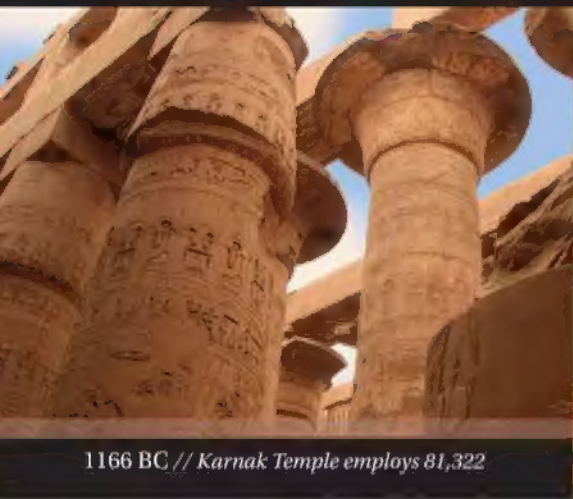
Kingdom rule Egypt from the city of Lisht, near Memphis. But at some point around 1650 BC, the kingdom falls apart. Immigrants, whom the Egyptians call Hyksos – probably from modern-day Palestine – establish themselves as kings in the northern Nile Delta. A foreign ruler now reigns in the city of Avaris, while the Egyptian pharaohs flee to Thebes. Not until around 1550 BC does Thebes have a king strong enough to conquer Avaris, reunite the kingdom and usher in Egypt's next golden age – the New Kingdom.



1473 BC // The female pharaoh Hatshepsut



1323 BC // Tutankhamun is laid in his tomb



1166 BC // Karnak Temple employs 81,322

PHARAOHS ON THE RISE

1530 BC

After defeating the Hyksos people in around

1530 BC, Egypt's reinstated pharaohs are ready to build an empire that's stronger than ever. During the battles against the Hyksos kings, the Egyptians learned two vital skills: bronze making and the use of chariots. Now the New Kingdom's rulers are ready to subject their enemies in the south and north to Egypt's renewed might. The golden kingdom of Nubia, which previously belonged to the independent Kingdom of Kush, again becomes an Egyptian province, and to the north the pharaohs subjugate Palestinian and Syrian kingdoms.

RAMESSES REIGNS

1279 BC

Egypt experiences its richest and most powerful era under

the pharaohs of the New Kingdom, but the upturn doesn't last for ever. Strong enemies and weak pharaohs cause the empire to crumble, while vassal kings turn their backs on Egypt. But in 1279 BC, a powerful man ascends to the throne. Ramesses the Great immediately sets himself against the kingdom's greatest enemies: the warlike Hittites, who from their hometown of Hattusa in Turkey, conquer more and more of Syria. Ramesses stops the Hittites' advance, later makes peace with them, and until his death in 1213 BC, rules over Egypt's final days of glory.



1069 BC // Tanis, new seat of power



525 BC // The Persian king Cambyses conquers Egypt



305 BC // The Ptolemaic dynasty



48 BC // Cleopatra seduces Julius Caesar



31 BC // The Battle of Actium

1069-30 BC

KINGDOM IS BROKEN

1069 BC

None of
Ramesses
the Great's

successors can live up to his 67 years of peace and prosperity. Libyan tribes invade from the west, so-called Sea Peoples threaten from the Balkans in the north, and to the south the Kushites rise again and recapture Nubia's gold mines. Egypt loses its vassals in the north-east, grain prices rise, and corruption, strikes, and unrest rage. The empire falls apart – in the north, pharaohs try to rule from Tanis from 1069, while the high priest of Thebes establishes his own state. Libyan rulers later seize power before civil war erupts again.

PERSIANS RULE

525 BC

At the beginning of
the first millennium
BC, the once mighty

Egypt is divided among foreign powers and ambitious local kings. Around 716 BC, a mighty Nubian army from the Kingdom of Kush invades in an attempt to restore stability, but by 671 BC, the conquerors are overthrown by new attackers – this time Assyrian – in northern Egypt. Later, King Psamtik succeeds in freeing Egypt and initiating a short period of prosperity, but it's only a brief respite. In 525 BC, the mighty Persian King Cambyses thunders through the Nile Valley. Egypt is now in Persian hands.



Circa 450 BC // *Herodotus visits Egypt*



332 BC // *Egypt falls to Alexander the Great*



30 BC // *Octavian brings Egypt under Roman rule*

GREEKS ARRIVE

332 BC

The Persians retain power in Egypt with few interruptions

until a new contender appears on the northern horizon. Alexander the Great is the son of King Philip II of Macedonia, and as a young man was taught by Aristotle himself. From 338 BC and for the following 15 years, Alexander conquers half of the known world, including Egypt in 332 BC. The empire crumbles immediately after Alexander's death, but he leaves a lasting mark on Egypt, which he bequeaths to his general, Ptolemy. In 305 BC, Ptolemy proclaims himself pharaoh. The Ptolemaic dynasty is born

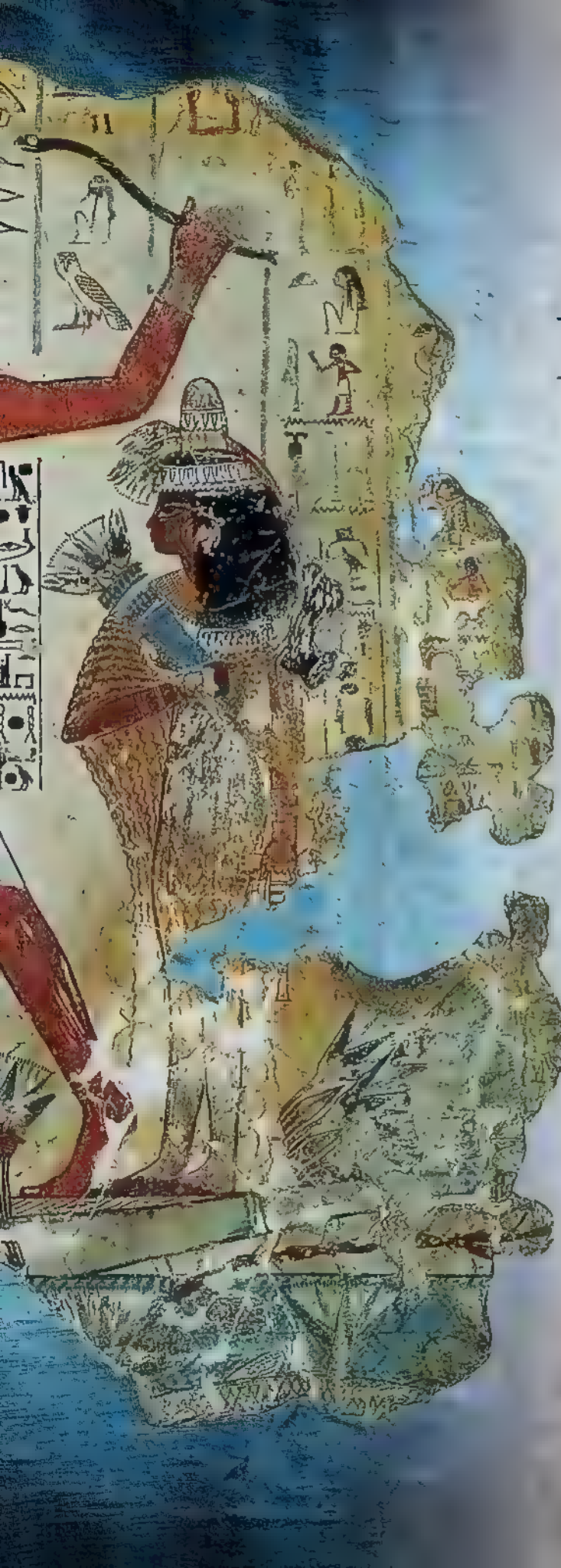
CLEOPATRA LOSES KINGDOM

30 BC

The Greek Ptolemies rule Egypt from the delta city of Alexandria for several

centuries but have to admit that Egypt is far from its former glory. To the north-west, a new empire is rapidly growing: throughout the last century BC, Roman legionaries have been marching over ever-larger parts of Europe and Asia Minor, and the Ptolemies ultimately become almost completely dependent on Roman support. Eventually, the Romans consider Egypt theirs. Cleopatra, a clever, young queen, is the last to try to create a strong, free Egypt, but her efforts end in tragedy and invasion by the Romans in 30 BC.





THE NILE PROVIDED EVERYTHING

700,000-2950 BC

Egyptian civilisation would never have succeeded without the Nile, which still flows like an essential life force through the barren north-east African desert. The river's rising waters flooded the Nile Valley every year, leaving mud so fertile that hunger was very rarely a problem for the Egyptians. From the Nile, they received food, shelter and – over time – their identity as a nation.

700,000-2950 BC

700,000 BC

Humans leave tools behind in the Nile Valley.

6000 BC

The first agricultural tools are cut from flint.

5000 BC

Figures of people and animals are made from bone and clay.

3600 BC Two cultures emerge in Upper and Lower Egypt in the Nile Valley in the south and the delta in the north.

2950 BC

King Narmer unites Egypt into one kingdom.

700,000 6000 5000 3600 2950



Each year in June, the monsoon blows over the Ethiopian Highlands. Near the Indian Ocean, the wind hits the mountains, which in places extend more than 4,550 metres into the sky. Where it meets the mountains, the monsoon sends cascades of rain over the surrounding flat, green plains and down into Lake Tana, a huge body of water in the north-west of Ethiopia. From here, the water flows into the Blue Nile and on northwards. At Khartoum, the present-day capital of Sudan, the river becomes the White Nile.

From there, in ancient times before the Aswan Dam tamed the mighty power of the river – the mass of water continued to swell and rush through Nubia and Egypt. There, the water flowed over the banks and flooded the surrounding fields before finally cascading into the Mediterranean, far to the north.

MUD GAVE LIFE

When the river receded again a few months later, as well as a considerable number of edible fish, it left behind a thick layer of mud. This mud saturated with minerals and salts made the soil along the Nile some of the most fertile in the world. It was the perfect place for one of the most impressive kingdoms in the history of the world to flourish.

For the people of ancient Egypt, the flood was the highlight of the year, and the Nile behaved with astonishing predictability. Everyone knew when the water would reach their area. The water levels began to rise in mid-August in southernmost Egypt. Four to six weeks later, the water rumbled with unstoppable force over the Nile Delta, where it saturated the fields.

When the river was at its highest, the water could cover the entire

floodplain at a depth of up to 1.5 metres before receding some time in early October. By the end of November, the banks of the Nile were so dry again that during the mild winter, the farmers could begin to sow wheat and other crops to harvest the following year, around April.

When the harvest was over, the farmers left the fields empty so the baking sun would kill any pests or disease in the soil.

The river's regular rise and fall meant that the inhabitants of the Nile Valley – unlike people elsewhere in the region, who relied on more unpredictable rivers, such as the Euphrates and Tigris – rarely experienced famine caused by too much or too little water.

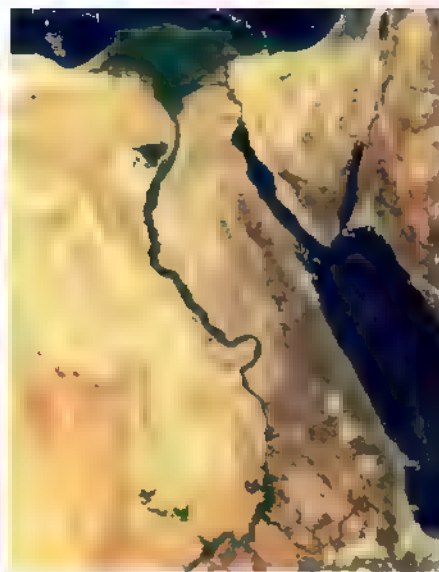
When the Nile did occasionally fail, however, it had serious consequences. Two metres lower than normal meant that a third of the floodplain remained dry. The people of the Nile planned for such an occurrence, though, by stockpiling grain in their storehouses.

HUNTERS BECAME FARMERS

The area around the Nile has always attracted people. The first human footprints in the Nile Valley were undoubtedly made when Homo sapiens began migrating from Africa, and discoveries of primitive tools tell archaeologists that some of modern man's ancestors moved into the Nile Valley 700,000 years ago. The earliest remains of huts or tents are between 250,000 and 90,000 years old.

Throughout the millennia, the climate changed again and again, and life always followed the all-important rains. In many of today's barren desert landscapes, it rained regularly for long periods, so that the terrain abounded with vegetation that was edible for both animals and humans. In other periods, both rain and life disappeared.

Around the year 7000 BC, a change in

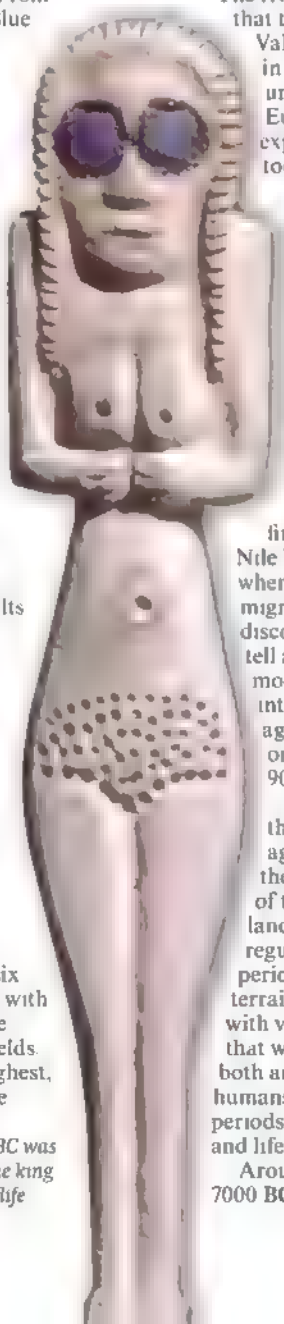


From space, the life giving role of the Nile in one of the world's driest regions is evident even today.

climate began that made large parts of the present Sahara a fertile area, teeming with life. In the region around Lake Qarun in the Faiyum Oasis, a multitude of animal species – such as crocodiles, gazelles, elephants and hippos – soon flocked, many of which have since disappeared. Humans also found life comfortable there.

Discoveries of animal bones show that the early Egyptians' diet at that time consisted mainly of game and fish. But finely sharpened flint tools, with handles made from branches of tamarisk shrub, show that the people in the area gradually also began to cultivate the land. Wheat and barley were the preferred crops, and the farmers carried them home in long, wicker baskets. Any grain that was not ground into flour was kept in storehouses. Most of the chambers that archaeologists have excavated are about a metre in diameter and 30-100 centimetres deep, with reinforced sides made of wicker. Wicker was also used for the earliest houses, which were oval and equipped with

The Nile supplied the Egyptians with everything, from essential water supplies to fish and papyrus, which grew in the northernmost delta.



This bone figure from 4000-3000 BC was possibly laid in a tomb to ensure the king would have concubines in the afterlife.

NILE DELTA

■ The Nile Delta is the large area – 160 km long and 240 km wide at the coast – where the great river divides and flows into the Mediterranean. Here the soil was moist, fertile and suitable for agriculture, plus the ancient Egyptians could fish and hunt everything from birds to hippos

CIVILISATION DEVELOPED IN A GEOGRAPHICAL EL DORADO



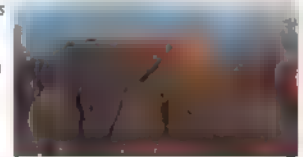
Egypt's geography provided the ideal conditions for developing a culture that was rich, refined and unique. The lushness of the Nile Valley ensured enough food for all, while the desert and mountains protected against enemies and foreign influence.

SINAI**● MEMPHIS****FAIYUM OASIS**

■ The lake in the middle of the oasis gets water from the Nile, and the area has been inhabited by farmers since before 5000 BC. The oasis later became an important meeting place for commercial caravans and, especially after the pharaohs lowered the water level, Faiyum developed into a crucial source of grain. In time, it even supplied the Roman Empire.

**SINAI PENINSULA**

■ In ancient times, the peninsula's arid desert and high mountains formed a protective border for Egypt from the Levant – present-day Israel, Jordan, Lebanon, the West Bank and Gaza. Two of Egypt's very first turquoise mines were also here, now known by the Arabic names Serabit el Khadim and Wadi Maghara. The mines were in use during the First Dynasty and possibly even earlier.

**EASTERN DESERT****EASTERN DESERT**

■ In the impassable area, which stretches between the Nile and the Gulf of Suez, there are mountains up to two km high, interrupted by deep gorges and wide crevices. The desert protected against enemies and also contained small gold deposits.

**NILE VALLEY**

■ From the middle of the fourth millennium BC onwards, in the lush belt along the Nile, the Egyptians created a civilisation that would last longer than any other in world history. To the south, the valley is narrow – about three kilometres – while further north it extends up to 16 kilometres in width.

**WESTERN DESERT****EGYPT****THINIS****NAQADA ●****WESTERN DESERT**

■ To the west, the fertile Nile Valley was – as it still is – bordered by a flat, barren desert. The landscape alternates between sand dunes and barren rocky deserts that stretch as far as the eye can see.

● HIERAKONPOLIS**NILE'S FIRST CATARACT**

0 100 200 300 km

The ancient Egyptians developed some of the finest flint tools the world has ever seen.

- several fireplaces for cooking and providing warmth on cold evenings. Over time, the prehistoric Egyptians began to strengthen the wickerwork with mud from the Nile, resulting in a robust building material for the lower part of the walls of the house

They dug the floor about 40 centimetres into the ground, and in some houses the occupants covered it with reed mats or a layer of clay. The height difference between the floor and the ground outside the house made it necessary to provide the entrance with a step, which the Nile inhabitants often made from a hippopotamus tibia.

WORLD'S BEST FLINT KNIVES

The houses were as close to the Nile as possible, but always at a safe distance from the rising floodwaters. There was no real structure to the settlements. The early Egyptians built randomly, where natural features of the landscape – such as hilltops, valleys and soil that was easy to dig – made it advantageous to settle. Livestock – such as pigs, sheep, cows and goats – was kept outside the houses, and the meat and milk were a welcome addition to the game, fish and grain of the Egyptians' usual diet.

As early as 5000 BC, the inhabitants of the Nile Valley created fine figures of people and animals in ivory or ceramics. Hippos, in particular, were a popular motif. The large animals featured prominently in daily life, as both a quarry for hunting and as a pest, because they regularly trampled crops. Fish, turtles and other animals were also used as motifs on vases, bowls and the flat palettes that the early Egyptians used to mix their make-up. Some of the craftsmen's animal and human figures had shells or stones as eyes, and the vases were finely coloured, with a red background and a black border at the top. Archaeologists believe that the potters created the colour effect by placing the vase upside down in a layer of ash, so that the pottery was

oxygenated by varying amounts and thus developed different colours. Later, around 3500 BC, the early Egyptians began decorating their vases with simple depictions of people, animals and plants. Excavations of graves have revealed that the Nile inhabitants of the time already appreciated colourful jewellery, which

would later become a distinctive feature of Egyptian attire. Necklaces and tiaras of gold, turquoise, malachite and garnet have been found in tombs from around 3250 BC near Abydos, in the south of Egypt. During this period, the inhabitants of the Nile Valley also carved flint knives, whose fine yet functional appearance has never been surpassed. The knives, which had beautifully decorated shafts, made of ivory, for example, were cut and sharpened so precisely that the grooves in the blade were often exactly the same size



TECHNOLOGY

CULTURE...

ECONOMY

DAILY LIFE



Shaduf ensured water in droughts

From around the year 1500 BC, Egyptian farmers began using a shaduf, an irrigation tool developed in Mesopotamia, which had a bucket at one end of a pole, and a counterweight at the other. The farmer lifted water in the bucket from reservoirs built of

mudstone and distributed it into canals. From the canals, he lifted water again with a shaduf and poured it over his dry fields. By using a shaduf – which can lift about 2,500 litres per day – farmers could expand a cultivated area by 10 to 15 percent.

BEER BREWED ON A LARGE SCALE

While arts and crafts were flourishing, the climate changed. The rain, which had previously made large areas fertile, moved further south year after year, until it eventually fell only in present-day Ethiopia far south of ancient Egypt. From around 3600 BC, the Nile Valley was already, by virtue of the annual flood, Egypt's only fertile region with enough food for cattle and humans. More and more people therefore squeezed into the valley, and slowly the first towns developed. In these



In the fourth millennium BC, fortified towns suddenly appeared in the Nile Valley.

communities, the inhabitants shared or exchanged goods with each other and gathered together to worship common gods, in honour of whom they built temples. Eventually, the towns also created common burial sites, which were often located in the desert, outside the settlement.

Gradually, a whole chain of towns grew up along the Nile, three of which emerged as the most important. Naqada, Thinis and Hierakonpolis.

In Hierakonpolis, which has been under excavation since the 1960s, archaeologists have found Egypt's oldest preserved house – a potter's residence from around 3600 BC. The house, which was excavated by archaeologists in 1978, was probably preserved because of an accident. Historians believe that a gust of wind sent the flames from the workshop's kiln towards the house one day, causing it to catch fire. The fire hardened the ground and the mud bricks that formed the lower part of the walls, turning the timbers and mats into charcoal and ash, which archaeologists have since been able to study closely. At the potter's house, archaeologists also found

the remains of a large number of pottery items, which probably made up his sales display. Most of the pieces originated from jars or pots. Archaeologists have also found donkey bones, which led them to speculate that the potter travelled around selling his pottery.

In addition to the potter's house, Hierakonpolis's ruins also housed what archaeologists believe was the world's first industrial brewery. The brewery has been dated to the same period as the potter's residence and contained huge vessels with the capacity to brew over 1,000 litres of beer per day.

CULTURE CAME FROM THE SOUTH

Discoveries of high city walls and damaged skulls suggest that the three cities of Hierakonpolis, Thinis and Naqada presumably ruled by their own royal

families – were at war with each other at one point.

The fighting probably stemmed from rivalry over the control of important trade routes, which supplied the nascent kingdoms with imported luxury goods, such as gold, precious stones and olive oil. Historians still aren't sure how it happened, but Thinis apparently came out on top in the struggle for power. Presumably, it was a king from there who later united all of Egypt into one great kingdom.

Hierakonpolis, Naqada and Thinis were all in the part of Egypt known as

Upper Egypt. The Egyptians saw their land as divided into a southern and a northern part – and a little confusingly, they called the southern part Upper Egypt and the northern part Lower Egypt. In the minds



Hippopotamuses were a popular motif among the earliest Egyptian potters.

“Egyptologists still debate how Upper and Lower Egypt became one kingdom”

➤ of the Egyptians, everything began with the Nile, and because it flowed from the south, they placed the south at the top of their mental map

From early times, Upper Egypt was clearly defined by its geography: to the south, the strong currents of the so-called First Cataract of the Nile bounded the area. Far to the north, the landscape changed dramatically again, with the Nile spreading out into a widely branched delta, which in many places was swampy and impassable. And on both sides of the narrow Nile Valley lay dry deserts. Nowhere along the more than 1,000-kilometre-long green belt in the desert could people live more than a few hours' walk from the Nile. Bound

together by the life-giving river, the inhabitants of the valley slowly developed the culture and society we know today as typically Egyptian. Powerful kings

proclaimed themselves gods and were laid to rest in richly furnished tombs, so they would have a comfortable afterlife. The idea of a divine pharaoh was born.

In Lower Egypt, a culture also slowly grew. But exactly how civilisation in the delta developed remains a mystery

to historians. For millennia, the Nile has washed layer upon layer of sediment across the region, covering most traces of Lower Egypt's early history with mud. Academics know, however, that people there originally lived more like their neighbours in the north-east than the inhabitants of Upper

Egypt. Traces of a lively trade with Syria have been found, and many people lived in the same kind of homes dug into the ground as have been discovered from ancient Palestine.

Over time, however, the people of Lower Egypt came to live and think more and more like their neighbours in the south, as discoveries of pottery, among other artefacts, testify.

By the year 3200 BC or thereabouts, the culture

6,825 km

—the Nile's length from the White Nile's source to the Mediterranean

Around the year 3000 BC, many Egyptologists believe a king from southern Egypt conquered the whole kingdom



EYEWITNESS

*Hymn to the Nile / Unknown, c. 2100 BC***EGYPTIANS PAID TRIBUTE TO THE NILE'S FLOODS**

“ Hail to thee O Nile! Thou showest thyself in this land, coming in peace, giving life to Egypt.

Overflowing the gardens created by Ra, giving life to all animals. Watering the land without ceasing.

Maker of spelt,

creator of wheat. ... He filleth the granaries, enricheth the storehouses, he careth for the state of the poor. The hymn is addressed to thee with the harp. ”

from the south had prevailed over the original way of life in the Nile Delta. The way was paved for a united Egypt

ONE EGYPT

Egyptologists still debate how Upper and Lower Egypt became one kingdom. The Egyptians told of the mighty warrior king Menes, who subjugated the whole land and became the first pharaoh. But as Menes wasn't mentioned in sources until the 18th and 19th dynasties 1,500 years after the unification of the kingdom – many academics today doubt his existence.

A far more plausible record of the first pharaoh is inscribed on a 63-cm-high siltstone slab which was dug from the ground in a temple at Hierakonpolis in 1897. The palette tells of a king called Narmer, who on one side of the palette is shown in a classic pharaoh pose: seated high above a defeated enemy with a raised club. On the other side, the Narmer Palette shows the Egyptian social order: the king

is depicted twice as large as his vizier, just as the vizier is again twice as large as the king's soldiers. And just as interestingly, on one side of the palette, Narmer wears a tall headdress, similar to the white crown that symbolised Upper Egypt throughout Egyptian history. On the other side of the palette, he wears a crown similar to the red one that symbolised Lower Egypt.

The two images have been interpreted by archaeologists and Egyptologists as meaning that Narmer, who probably lived around 2950 BC, first conquered northern Egypt and then united the two kingdoms into one. So, many people think that Narmer is, in fact, Menes. However, academics are far from in agreement about how the palette's figures can be interpreted. For example, some prefer to equate Menes with Narmer's successor, Hor-Aha, and there is also disagreement about exactly when Narmer lived.

NILE UNITED THE KINGDOM

No matter how and by whom Egypt was united, it wouldn't have been achieved by a single pharaoh, but rather took place over a period of several hundred years, around 3000 BC. In the process, the Nile undoubtedly played a crucial role as the main thoroughfare that connected the entire kingdom. Some historians believe that the well-oiled state of the pharaohs, with its many officials, even grew out of the need to organise grain transportation between different parts of the kingdom.

When the union was complete, the pharaohs placed their first capital, Memphis, at the boundary between Upper and Lower Egypt – where the Nile divides into the delta. Today, the capital of modern Egypt, Cairo, is located in almost exactly the same place. On the south-western outskirts of the city of 20 million inhabitants, the huge pyramids still bear witness to the mighty kingdom that was founded there more than 5,000 years ago. ■

The Narmer Palette has been interpreted by many Egyptologists as evidence that Egypt was unified under the first pharaoh, Narmer.



The background of the page features a close-up of an ancient Egyptian statue's head on the left, showing a white face and a dark, textured headdress. To the right, there are faint, stylized hieroglyphs on a light-colored surface.

OBSESSED BY DEATH

3000-1100 BC

Death was not the end for ancient Egyptians but the start of a transition to the afterlife. On the west bank of the Nile, embalmers prepared the dead for their journey to the beyond. They carefully removed the corpse's organs, removed its brain through the nose and stuffed the body with preserving salts. They then laid it out to dry before finally wrapping it in bandages. In their pursuit of immortality, the deceased needed their body to remain recognisable – it was crucial that their dead spirit could reunite with the body in the underworld to attain eternal life.

3000-1100 BC

3000 BC

Egyptians
preserve their
dead in the
desert sands.

2200 BC

Inscriptions
describe how
the god Osiris
was embalmed.

1550 BC

Scribes
produce
funerary
texts.

1327 BC

Tutankhamun
is buried with
3,500 sacrificial
offerings.

1100 BC

Thebes's
mayor talks
of grave
robbers.

Anubis weighed the heart of the dead against a feather. If the scales were balanced, the dead person's spirit was deemed to be pure and good.

According to ancient Egyptian legends, the god Osiris inherited power over the world from his father, the earth god Geb. Together with his sister-wife, Isis, Osiris ruled over the earth, where humans lived in peace and harmony. But Osiris's brother Set, the god of chaos and disorder, was jealous of his siblings' happiness and made plans to assassinate Osiris so he could take the throne himself.

Set invited Osiris to a sumptuous banquet along with 72 co-conspirators. Beforehand, the god of chaos had secretly measured Osiris's body and made a beautifully decorated sarcophagus. In the

middle of the party, Set brought in the exquisite casket

and offered it as a prize to anyone who fitted perfectly inside.

All the guests tried without success. When Osiris's turn came, he crawled into the sarcophagus with no problems, but Set and his associates nailed the lid on tight and poured lead over the box's seams. Then they threw the

Osiris, Lord of the Underworld, decided the dead's fate.

sealed sarcophagus into the Nile, where it floated downstream to the Mediterranean.

Set believed he'd paved the way to power, but when Isis heard of the conspiracy, she hurried to seek out the sarcophagus, which she found in the town of Byblos in modern-day Lebanon on the east coast of the Mediterranean. The queen ripped open the lid, but Osiris was already dead. Isis ferried the body and its coffin back to Egypt, but Set discovered it, and in a rage tore the corpse into 42 pieces, which he scattered throughout the kingdom. Driven by her eternal love for Osiris, Isis once again set out to look for her husband, and she managed to gather the pieces together – all except for his penis, which had been swallowed by a fish.

The jackal god Anubis helped Isis reassemble the body parts before embalming it and rolling it in linen. With her magical powers, Isis created a new penis for her husband and revived him long enough for them to conceive their son Horus. Osiris then became Lord of the Underworld. When Horus grew up, he killed his uncle Set and seized power over Egypt.

Although the tale of Osiris's death and mummification is obviously a myth, it was nevertheless one rooted in reality for ancient Egyptians. The Nile's inhabitants were obsessed with the idea of preserving and reviving their dead relatives.

BODY SHOULD RETAIN ITS LIKENESS

The Egyptians did not perceive death as the end, but merely a transition to the journey through the underworld into an everlasting life beyond. In hieroglyphic texts that archaeologists have found in pyramids built during the Old Kingdom (2686-2160 BC), they said of the dead.

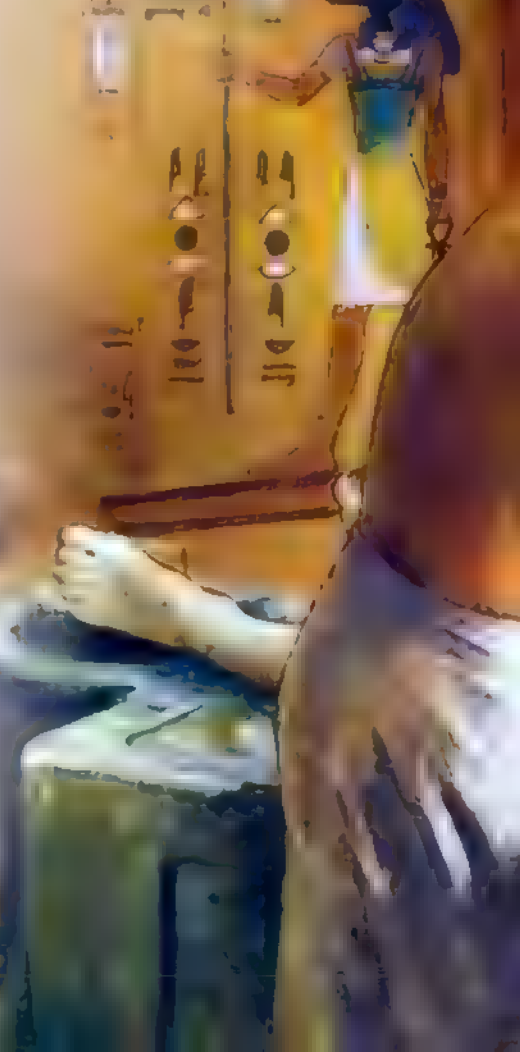
"As surely as Osiris lives, thou does live also; as surely as he doth not die, those doest not die also; as surely as he doth not perish, thou does not perish also."

According to Egyptian tradition, a human being comprised three spiritual elements: *ka* [life force], *ba* [personality] and *akh* [intellect as a living entity]. On dying, a person was freed from his physical body and existed as both *ka* and *ba*. The spirit *ba*, often depicted as a bird with a human head, travelled on through the underworld to the afterlife, where it was reunited with its *ka*, transforming the deceased into an *akh*.

In the afterlife, the dead's life force and personality required the body for

protection. But the spirit could only find this if the body looked as it did when alive. As a result, the Egyptians did their utmost to preserve the human appearance of dead bodies. Just as Isis had embalmed Osiris, techniques were developed to mummify the dead. Only in this way could they prevent the dead's spirit wandering aimlessly in search of its body for all eternity. In predynastic times – before 3000 BC – the

Embalmers cut open the body of the corpse with a single incision to pull out its entrails.



people buried their corpses directly into the warm, dry, desert sand, which naturally preserved skin, tissue, bones and hair albeit in shrunken form

Over time, however, the Egyptians refined their preservation methods, so bodies better retained their likeness. Mummification developed into a lengthy, complex procedure that only specialist embalmers – always men, and often priests – could perform

BRAIN WAS REMOVED WITH A HOOK

The embalmers worked on the western bank of the Nile because the sun set in the west, and so Egyptians associated that side of the river with death. For religious reasons, embalming always took 70 days.

Fresh corpses were brought to the embalmer's *ibu* [place of purification], where they immediately set about conserving the body against the threat of rapid decay under Egypt's baking sun. For four or five days, embalmers stood bent over the corpse removing organs and other tissue likely to rot first. The brain, which wasn't considered an important organ, was carefully pulled out through the nose using a custom-made hook. An embalmer now made a ten-centimetre incision in the left side of the abdomen to

“The body cavity was rinsed with water, wine and an array of spices,”

pull out the innards. Blood and other bodily fluids were drained and removed

The deceased's organs were preserved separately in special jars, which would later be placed in the burial chamber next to the mummy. Only the heart must be left in the body – according to Egyptian belief, the dead required this to pass successfully through the underworld

The body cavity was now rinsed with water, wine and an array of fragrant spices before being filled with linen bags containing 'natron', a mixture of specialist salts that dried out fat, muscle, skin and bones. By stuffing the cavities in this way, the embalmers ensured the body preserved

its human shape while it was laid to dry for about 40 days

STUFFED WITH SAWDUST

After the body had dried, embalmers began the final stage of mummification. They removed the natron bags and replaced them with sawdust, sand or Nile mud. The body was then covered in a resin made from a form of tar that occurred naturally around the desert's oil wells. Some mummies were also painted – women often in yellow, men in red. Wealthy Egyptians might also have artificial glass or porcelain eyes implanted

Afterwards, the embalmers would wrap the mummy in strips of unwanted clothing



SAWDUST PRESERVED BODY'S SHAPE

For 70 days, embalmers worked meticulously according to set procedures and with carefully selected materials. Their goal was to preserve the dead body's shape and skin as much as possible.



The body was washed with date wine and fragrant spices.

Rings are a commonly found artefact on Egyptian mummies

The dead were accompanied to the grave – in the form of figurines.



The deceased's organs were embalmed in special jars.



Embalming effectively preserved skin and nails.



or canvas. Only the richest could afford to be wrapped with fine linen. Every single toe and finger was individually wrapped.

To bring the dead good luck on their journey to the afterlife, embalmers often wrote magical words on some of the linen strips and wrapped various amulets into the bandages. Today, X-rays and CT scans map the location of these amulets around the mummy's head and chest without removing its bandages. For example, they can discern how the high-ranking official Nesperennub has a snake amulet placed in the bandages

on his forehead

presumably to protect him from snake bites

The expertly preserved human bodies have also given historians a unique insight into the ancient Egyptians' life expectancy, health and disabilities. For example, mummies' teeth reveal Egyptians' poor oral hygiene, probably caused by the fact that the abrasive desert sand regularly worked its way into their diet.

THE FUNERAL PROCESSION

The mummy was now ready to be laid in its sarcophagus, which was made of wood or stone, its head on a rest and accompanied by the smaller containers that held its harvested organs. The Egyptians often painted an eye on the outside of the casket to symbolise the eye of the god Horus, so the dead could see into the world of the living. The sarcophagus was also fitted with a small false door through which the spirit could come and go as it pleased.

After 70 days of preparation, the funeral could finally begin. The mummy was transported to its burial site in a cart pulled

by oxen. At the funerals of rich or powerful lords, a group of priests led the procession,

followed by singers and dancers paying homage to the deceased

Behind them went family, friends and servants. Some even hired professional mourners to play the role of weeping wives

When the sarcophagus reached its resting place, the procession was greeted by 'muu' dancers whose movements illustrated the solemn moment when the deceased crossed the threshold from the realm of the living to that of the dead

The entourage now placed the casket upright in front of the tomb, and a priest wearing a jackal mask to represent Anubis, the god of mummification, performed a purification ritual using oils and incense. A senior priest then recited a series of

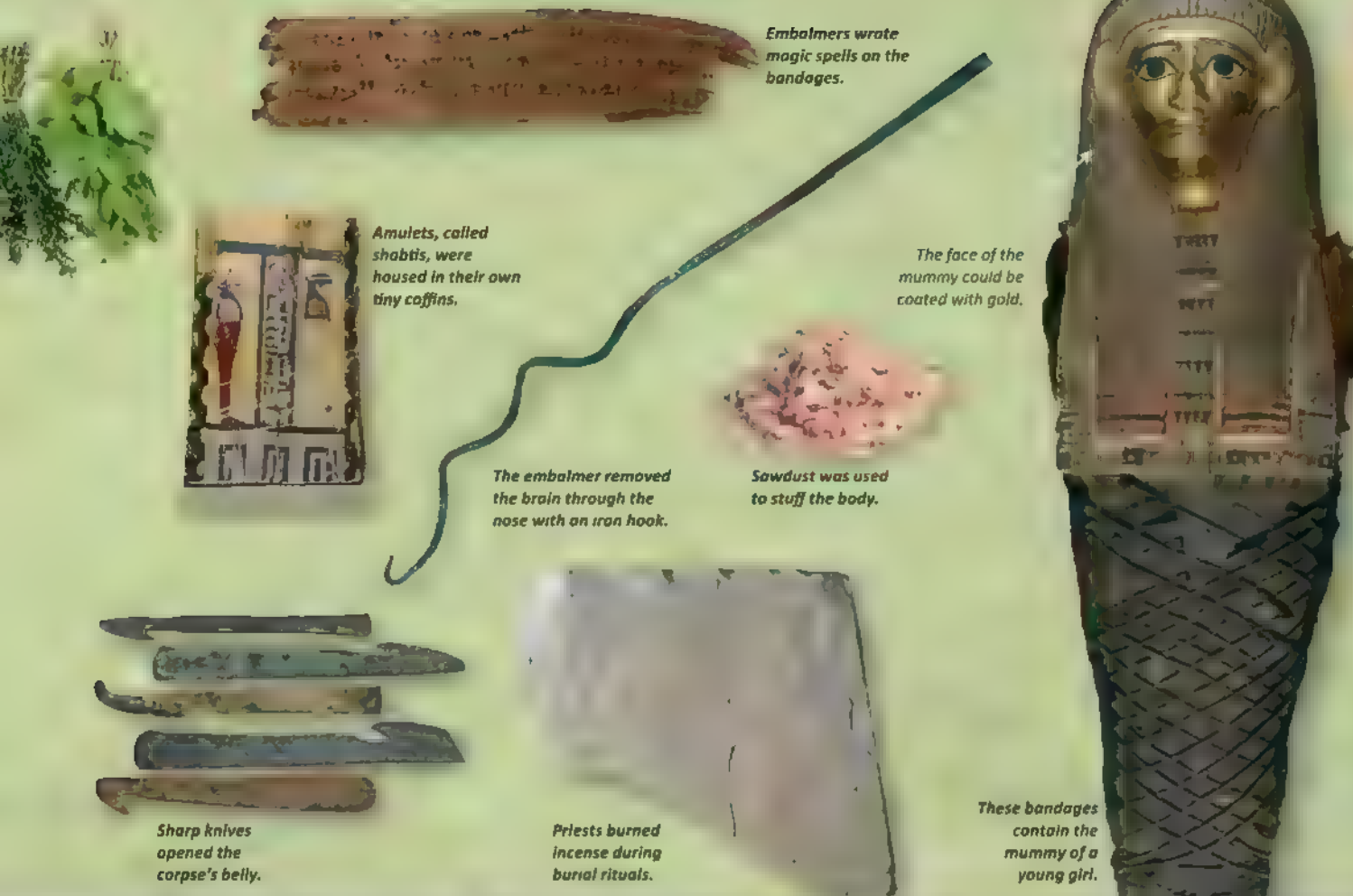
incantations while the deceased's heir or another priest performed the Opening of the Mouth ceremony:

"O Osiris the King, I split open your mouth for you," the priest chanted while the heir passed a tool such as a knife with a snake's head or calf's bone over the mummy's mouth painted on the outside of the casket. This ensured that the dead could



Bones and teeth reveal clues about the health and lifespan of the deceased. Here, an Egyptologist examines the mummy of Queen Hatshepsut

300,000 cat mummies were shipped to Britain in around 1900 and made into fertiliser



breathe in the afterlife. By also reopening their eyes, ears and nose, the entourage reawakened the senses, so he or she could receive sacrificial offerings before the mummy was placed in its sarcophagus. Offerings ranged from a few ceramic jars of food and drink for ordinary Egyptians to lavish treasures for the richest. Pharaohs were placed in burial chambers packed with valuables and amulets – including *shabtis* (small mummy-like figurines) whose role was to serve the dead in the afterlife. The child pharaoh Tutankhamun's tomb in the Valley of the Kings, for example, revealed 3,500 different offerings, including gold-plated furniture, statues, jewellery containing precious stones, and fine weapons.

The tomb itself also served to display the dead's status and fortune. Many ordinary Egyptians were buried in the desert sands, while Egyptian rulers were laid to rest in beautifully decorated tombs guarded by statues. Some of the most illustrious tombs housed 150 rooms full of valuables.

CUTTER OF SOULS

After the funeral, according to Egyptian myths, the deceased's spirit began a long and perilous journey. Not only must it cross the burning lakes of the dark underworld Duat, but the spirit also had to get past a series of fearsome monsters. Duat existed

in opposite to earth, only lit at night as the sun god Ra travelled from the western horizon back to the east in time for sunrise.

To reach paradise, the dead must follow the same route as the sun god. The traveller faced new challenges for each of the 12 regions (one per hour) they passed through, and these place names suggest the trip required much courage: for example, the 'Waters of Osiris' and 'Desert of Rosetau'. The underworld was protected by a vast array of guardians and demigods, from 'Fiery Face' to 'Swallow of Sinners'.

During the Middle Kingdom period (2055-1650 BC), the Egyptians decorated the

inside of their sarcophagi with a religious text called *The Book of Two Ways*. It describes one of the underworld's guardians as a monstrous crocodile-headed being wielding a knife.

The dead, however, weren't completely alone on their journey, but were protected by the gods and beings who also aided the sun god on his voyage through the night. Help was forthcoming

TECHNOLOGY



CULTURE

ECONOMY

DAILY LIFE

Natron prevented decomposition

Once the embalmer had removed the dead's organs after 4-5 days' work, he stuffed the body with bags filled with a combination of salts including bicarbonate of soda. The salt was effective at absorbing fluid from the skin and tissue,

drying the mummy, and halting decomposition. Each mummy required up to 250 kg of natron. The faint pink salt was naturally occurring, extracted from a saltwater lake close to where the Nile divides and Cairo lies today.

“The heart was cast down to the fearsome demon goddess Ammit,”

>> from the likes of ‘Cutter of the soul’, ‘Overcomer of the power of the enemy’, and ‘Terrifier of spirits’. The sun god himself also guarded the spirit during its journey.

FUNERARY TEXTS PAVED THE WAY

To evade these monsters and survive the other trials, it was critical the deceased knew the route and the proper forms of address for the creatures they’d encounter.

Therefore, Egyptians began to produce funerary literature with maps, descriptions of the underworld and magical spells.

Funerary texts became common at burials during the New Kingdom (1550-1069 BC), and temple priests even started to produce standard versions of the texts on papyrus, making them affordable for the less well off. Incantations could also be written directly on to the mummy’s bandages. Aristocrats, priests, senior officials and royalty all had their funerary text painted on to their sarcophagus or on the walls of their tomb.

Egyptologists have found texts containing up to 165 chapters. They’re usually split into four sections, each with its own theme. The

first part covers the deceased’s entry into the tomb and descent into the underworld. Part two describes the resurrection that will allow the dead to travel through the underworld, accompanied by protective spells for the journey. The third part explains how the deceased should prepare for the final judgement from the gods in Osiris’s

“Anubis led the deceased’s spirit to Osiris’s throne, where he would swear to have not committed sins during his life.”

presence. The final section describes how the dead could be resurrected as an eternal spirit. These books of the dead became common at all types of funerals in the early New Kingdom period around 1550 BC, and were used for more than 1,500 years thereafter.

With the correct spells and amulets in their possession, after passing through the underworld, the dead reached Osiris’s Hall of the Two Truths. Here, they faced their final judgement.

GODS WEIGHED THE HEART

According to the stories, the Lord of the Underworld, Osiris, sat high on his throne accompanied by his shepherd’s crook and flail, both symbols of his power. Often, Osiris was flanked by his sister-wife Isis, his

second sister Nephthys, and the goddess of truth, justice and harmony, Maat.

The god of mummification, Anubis, led the deceased’s spirit to Osiris’s throne, where he or she would swear to have not committed certain sins during their life on earth. These so-called negative confessions included: “I have not robbed the poor,” “I have not mistreated cattle,” “I have not caused tears,” and “I have not blasphemed a god.” To test if this were true, the dead person’s heart was placed on one of the scales. Maat took a white feather of truth from her head and placed it on the other, and the jackal-like Anubis kept an eye on the outcome.

If the deceased’s heart was heavier than the feather, then it was weighed down with sin and he or she had lied. The heart was immediately cast down to the fearsome demon goddess Ammit, part-crocodile, lion and hippo. She immediately devoured the heart to seal the deceased’s fate.

If the feather and the heart were in perfect balance, however, the dead could breathe a sigh of relief, throw off their mask and loosen their bandages. The spirit was now joined the life force ka to be resurrected as a free spirit, akh, who could join the sun god Ra and spend eternity in the hereafter.

Tomb hieroglyphics paint a picture of the life beyond as a fertile realm, where the Nile not only flooded the country once a year, but

“Wealthy and powerful Egyptians were carried to their graves in grandiose processions.”



frequently turned the whole Nile Valley green. Fields were full of golden grain, so that none went hungry. That's why the Egyptians named this kingdom *Auru* [the Field of Reeds]. The afterlife promised lush gardens, where the trees were heavy with fruits and nuts, clusters of dates swayed in the palm trees, and white lilies and purple mandrakes coloured the riverbanks. In the Field of Reeds, there was no more daily struggle simply to survive, as it was for mortal Egyptians.

RELATIVES PRAYED FOR HELP

After the funeral, the bereaved continued to bring food and drink to the grave or tomb, and the family continued to communicate with their dead relatives. Egyptians perceived the tomb as a mystical place where they could seek advice on everything from fertility problems and diseases to family conflicts.

To get in touch with the deceased, the bereaved could seek out a local wise woman, known as the *ta rekhet* [the woman who knows]. Alternatively, they could commit their prayers and questions to papyrus or pottery and leave their messages by the grave. Archaeologists have discovered large quantities of such letters. In one from the Tenth Dynasty – around 2100 BC – a son (Hen) asks his deceased father (Meri) to

TECHNOLOGY



CULTURE

ECONOMY

DAILY LIFE

Egyptians mummified animals

The Egyptians preserved not only their fellow human beings, but also their domestic animals. They were laid next to the dead as burial gifts, either so that a dear domestic animal could follow its master in death or simply

as food for the deceased in the afterlife. In some graves, surviving family members simply laid a mummified bone. Archaeologists have found mummified cats, dogs, monkeys, fish, snakes, crocodiles and even oxen.

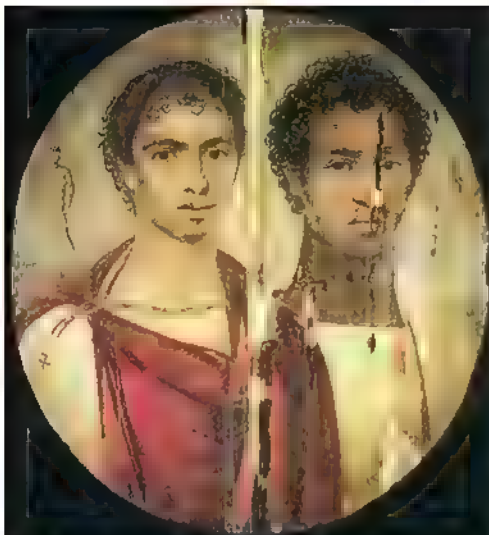
explain to the gods that he's innocent of a death among the family servants. In another letter from the same period, a man (Meritifi) asks his dead wife if she is being well cared for in the afterlife before pleading, "Drive off the illness of my limbs!" Other letters simply expressed a family member's grief for the bereaved – one man wrote to his wife that after her death he stood on the street and cried.

However, some letters also suggest that Egyptians didn't always perceive the dead as benevolent helpers. Some spirits returned to haunt those who'd not honoured their memory and failed to provide sufficiently

rich offerings. The Egyptians even believed that angry akhs could possess the bodies of the living to make them ill.

Worst were the *mwne* [spirits who'd failed the test in Osiris's hall, so had not transfigured into akh]. *Mwtw* had often lived unhappy or cursed lives or had suffered a shameful death. They were trying to take their revenge on the living before their banished souls were wiped out. These 'enemies from the west', as the Egyptians often dubbed evil spirits, usually attacked at night, as people lay defenceless.





The decoration on the dead's sarcophagi changed in style after the Greek and Roman conquests of Egypt.



An entire female chorus mourns the deaths of the two royal officials Nebamun and Ipuki on this mural from the officials' shared tomb.

> in a deep sleep. They could manifest as nightmares, illness or even death.

To arm themselves against *mwtyw*, the Egyptians wore various amulets or invoked protective gods with magical spells

GRAVES HIDDEN FROM ROBBERS

Tombs were also at risk – not because of evil spirits, but because robbers were always looking to plunder the graves. Wealthy Egyptians were obvious targets, with their precious metals and fine handicrafts. In 1100 BC, the mayor of Thebes discovered that the guards he'd hired to protect the tombs were themselves looting their valuables. Craftsmen working in the cemeteries also took sacrificial offerings when their wages were unpaid. To scare robbers away, warnings were left

"I am an excellent lector priest, exceedingly knowledgeable in secret spells and all magic. As for any person who will enter this tomb of mine in their impurity... I

shall seize him like a goose, placing fear in him at seeing ghosts upon earth. that they might be fearful of an excellent *akh*!" was the threat from one tomb dating back to the Old Kingdom (2686-2160 BC)

The threat from grave robbers was why pharaohs' tombs were often hidden. Their burial chambers were carved into rock – hidden at the end of secret passages in pyramids, or buried deep underground and fitted with false doors to thwart thieves.

The tombs of the pharaohs – like the embalmers' workshops – were situated on the Nile's west bank, from where the sun went down. The Valley of the Kings, where the mighty pharaohs and their queens from the New Kingdom were laid to rest, was one such example. Their temples, called 'Mansions of Millions of Years' were a major attraction during the kingdom's religious festivals, such as the annual Beautiful Festival of the Valley

held in Thebes. At the start of the festival, a procession of priests carried statues of the sun god Amun-Ra, the mother goddess Mut and the moon god Khonsu across the Nile so they could visit the dead pharaohs. Crowds of people followed the priests'

procession to pay homage to the past rulers. By honouring and making sacrifices to the dead, the spirit – *ka*, *ba* and ultimately *akh* – could achieve immortality.

ROMANS PAINTED FACES

Even after the Egyptian kingdom had been conquered by a succession of Persians, Greeks

and Romans, the Egyptians continued to mummify their dead. Around the time of Christ, however, sarcophagi decoration changed dramatically. Instead of simple masks, the Romans decorated coffins and sarcophagi with ornate portraits in the Greek and Roman style that sought to reproduce the dead's features. Most of these portraits originated in the area around the Faiyum oasis, where a large Greek immigrant community lived.

As Greeks and Romans converted to Christianity, burial customs changed, and the tradition of mummifying faded away until it finally disappeared around the year AD 700.

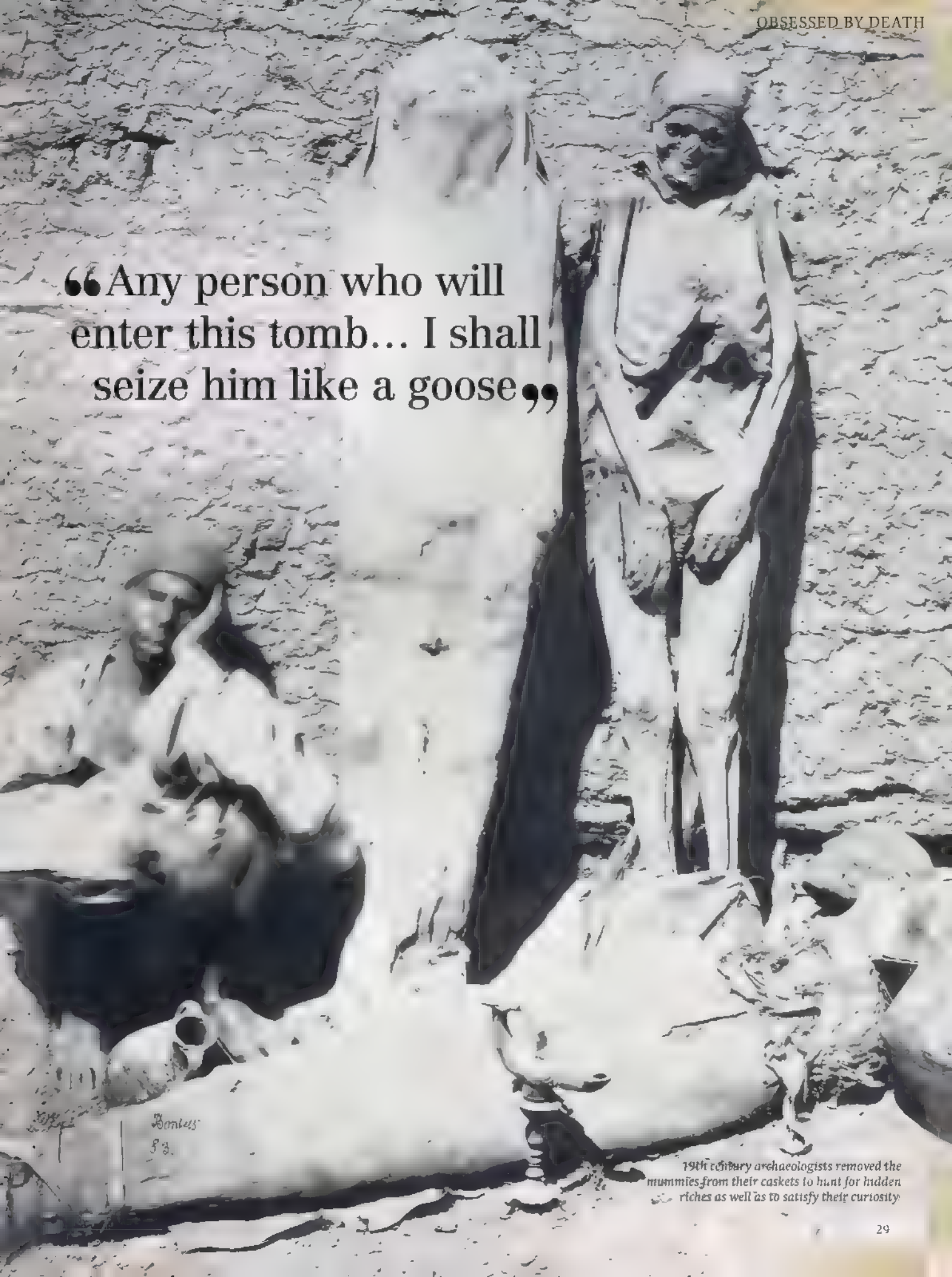
But the mummies remained preserved in their tombs. The Egyptians' efforts to conceal their tombs have meant that, even millennia later, archaeologists in later times have discovered richly furnished tombs containing mummies that looked just as they did when they finally left the embalmer's workshop. ■

"Mwtw were spirits who'd failed the test in Osiris's hall. They were now trying to take their revenge on the living."



The tomb of Pharaoh Seti I was built as a system of chambers carved into the rock in the Valley of the Kings.

“Any person who will
enter this tomb... I shall
seize him like a goose,”



19th century archaeologists removed the mummies from their caskets to hunt for hidden riches as well as to satisfy their curiosity.



EGYPT'S MIGHTY PYRAMIDS

2680-664 BC



Few edifices are surrounded by as much mystery as Egypt's pyramids. For five thousand years, the giant burial chambers have fascinated and amazed both academics and lay people. Who built them? Why do they look like that? And how did the ancient Egyptians transport the multi-tonne blocks from quarries and lift them into position, as the buildings grew higher and higher? There have been many answers, ranging from suggestions of divine intervention to technical descriptions of giant cranes. The latest theory proposes that the immortal monuments were built from the inside.

2680-664 BC

2680 BC Pharaoh Djoser has the first pyramid built in Saqqara.	2613-2589 BC Sneferu builds a perfect pyramid at the third attempt.	2589 BC Work starts on world's largest pyramid, at Giza.	2532 BC Khufu's son Khafra builds a pyramid and the Sphinx near the Great Pyramid.	1745 BC The last in the unbroken run of pyramids is erected.	664 BC Nubian pharaohs briefly revive pyramid construction
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2680 > 2613 > 2589 > 2532 > 1745 > 664



The Egyptians built around 130 pyramids, located in a belt along the Nile from Abu Rawash north of Giza to Abydos to the south.

In 1637, the English professor John Greaves surveyed the Great Pyramid of Giza. He carefully noted the length, width and slope of the mighty monument. He also explored its narrow passages, groping his way through the darkness. What most fascinated the Oxford academic, however, was the precision and accuracy with which the approximately two million multi-tonne stones were put together. He couldn't even fit the blade of a knife between the blocks.

"The structure of it hath been the labour of an exquisite hand, as appears by the smoothness and evenness of the work, and by the close knitting of the joints," he wrote in his book *Pyramidographia* which was published five years later.

Greaves was neither the first nor the last to be impressed by the pyramids. Over time, countless tourists and academics have admired the perfectly symmetrical stone monuments that have towered over the desert sands for six millennia. The pyramids are clearly built by an "exquisite hand". The question is, whose hand and how?

No contemporary accounts of pyramid construction have survived. But we know that the three large pyramids at Giza, outside Cairo, were built in the earliest years of the Old Kingdom, when Egypt became a united and well-oiled kingdom.

Their predecessor, the first ever pyramid, the sides of which are stepped, was built under Pharaoh Djoser. He reigned in the years 2667-2648 BC as the second pharaoh of the Old Kingdom. By

this time, Egypt was already a highly developed civilisation, which enabled the pharaoh to embark upon a major construction project, and the kingdom had a universal religion that viewed the pharaoh as a special link to the gods.

GATEWAY TO THE UNDERWORLD

As the pharaoh was immortal, his tomb had to be something special – both a tribute to him and the gods, and a portal to the realm of the dead, to which he now had to travel to continue his life after death. Djoser's pyramid set in motion a veritable construction boom in Giza. Subsequent pharaohs also wanted a pyramid, and over the next 1,200 years, more than 130 such monuments sprang up.

The three large pyramids at Giza were erected over three generations. They were built by Pharaoh Khufu, his son, Khafra, and his grandson, Menkaure.

However, it was Pharaoh Sneferu who had the idea that the sides could be made smooth by adding stones between the steps. This gave the pyramid the shape we associate with these buildings today. Sneferu's pyramid in Dahshur, however, was far surpassed by the pyramid of Pharaoh Khufu. At 146 metres tall, the Great Pyramid, as the monument is often called, was the tallest building in the world for thousands of years – the record was only broken by Lincoln Cathedral, in England, in the year AD 1300.

The lack of contemporary accounts has piqued interest in the pyramids and given rise to many theories. The Greek historian Herodotus wrote travelogues about Egypt

Women worked on the pyramids on an equal footing with men, evidenced by the wear and tear on their skeletons

in around the year 450 BC. Approximately two thousand years after the pyramids had been built, he described how the stones had been lifted into place with large cranes. He'd been told this by people who lived near the pyramids, who for generations had been passing down stories about how the monuments had been constructed.

An Arab traveller, the physician and philosopher Abd al-Latif of Baghdad, explored and described the Great Pyramid in the 13th century. He recounted, among other things, how the individual blocks in the pyramid fitted together so well that neither a hair nor a needle could be slid in between the stones. However, as his work wasn't translated from Arabic, his knowledge failed to reach Europe, where interest in Egypt nevertheless grew steadily.

BIBLICAL GRAIN STORES

The warriors of the great Crusades of the 12th and 13th centuries returned home with lively accounts of the Middle East, and the Europeans swallowed everything they heard – including a number of fictional stories. The most famous – and infamous – was *The Voyage and Travels of Sir John Mandeville*, Knight from the 14th century.

In the book, Mandeville, pretending to be a crusader, told many tales about the Holy Land and Egypt, including the pyramids, which he said were Joseph's grain silos, from the Bible.

In fact, the author had never even left England, but simply collected everything he'd read about the Middle East, and added a good dose of imagination. But his book was used as a travel guide for 500 years and came to colour Europeans' perception of the pyramids and what they were used for.

Only with Greaves's survey did an actual scientific study of the pyramids begin. In addition to mathematics and astronomy, Greaves was also well versed in Oriental languages, and he'd read pretty much everything there was to know about Egypt and the pyramids when, in 1637, he began



CULTURE

ECONOMY

DAILY LIFE

Sphinx is pharaoh with lion's body

With its lion's body and mid-length hair, the huge statue resembled the mythological beast the sphinx, or so thought the Greeks who came to Egypt with Alexander the Great, in 333 BC. But the effigy, with a body as long as a

football field and paws as large as a bus, is actually Pharaoh Khafra. The 'hair' is a pharaoh's traditional headdress. The figure, which used to be painted in bright colours, symbolised strength, and guarded Khafra's pyramid.

Blocks were dragged up an earthen ramp. Academics still debate exactly how it was done. Triangular stones on the steps made the surface of the pyramid completely smooth.



PYRAMID IN NUMBERS

Height	146.5 m
Width	230.3 m
Slope	52 degrees
Stones	circa 2 million
Workers	20,000-30,000
Man hours	circa 20 years
Weight	5.9 million tonnes



his work. At that time, Europe had a voracious appetite for everything to do with science, astronomy, mathematics and physics, but was also deeply fascinated by Oriental mysticism. Egypt, in particular, with its mighty pyramids and unfathomable hieroglyphs, was the subject of many romantic notions.

Greaves's claim that the Egyptians used an advanced unit of measurement when they built the pyramids, which he called the

Memphis cubit, was therefore immediately embraced. So-called pyramidologists claimed that this unit was not only highly advanced, but was also seen in the measurements of buildings in the Bible, the geometry of the Earth, and distances throughout the solar system.

The theories were first debunked in the 19th century, when more accurate measurements changed Greaves's figures and showed that the pyramid was, in fact,

built using the Egyptian royal cubit, which equated to 0.53 metres.

However, the pyramids are still the subject of some speculation by fanatics and New Age groups, who suggest they may have been built with divine intervention or input from extraterrestrial life forms.

PEASANTS BUILT THE PYRAMIDS

Seen through the eyes of modern science, the construction of the pyramids seems no

MEANWHILE IN BRITAIN

BRITONS BUILT STONE CIRCLES WEIGHING SEVERAL TONNES

While the Egyptians created angular pyramids, ancient Britons preferred the circle. Stonehenge, located 137 kilometres south-west of London, consists of two concentric circles of huge upright stones. One circle comprises stones from a local quarry, while the building material for the other – four tonnes of bluestone – came from Wales, 400 kilometres away. How the stones were transported that distance, historians don't know, just as it's still unclear exactly what the monument was used for.

> less impressive than in Greaves's time. Today's experts, however, reject all suggestion of unknown civilisations being behind the feat. The secret, they say, was more mundane: lots of manpower and an extraordinary talent for organisation. The evidence is found in the structure of the pyramids and in the desert sand around them. There, researchers have been working

for decades to answer the question of how and by whom the pyramids were built. Herodotus overestimated the number of workers, calculating that it would have taken one hundred thousand men to build the Great Pyramid. Today's archaeologists believe it required 20,000-36,000 men.

But Herodotus may have been right in some ways. There are indications that the pyramids were built in three annual shifts, and if you add up all the workers in those shifts, it isn't far off one hundred thousand.

The number of workers also varied with the seasons. In addition to a permanent staff that was employed all year round, many peasants arrived in late summer and early autumn, when the Nile flooded and they were unable to work in the fields.

HONOURABLE WORK

The permanent workers were specialists, who cut the stones to their final shape and eventually moved them into place. The rest of the workforce was recruited through a kind of civilian conscription, which required an individual to dedicate a certain amount of labour to the king.

These conscripts had to work for a number of weeks or months, and although it was obligatory, they

were by no means slaves. Rather, it was a form of civic duty. The call may not always have been received with enthusiasm, but the work was carried out with pride at being chosen to build for the king, in whose immortality the labourers thus shared.

MOST STONES WERE LOCAL

For the young recruits – who were often peasants and came from small villages in remote parts of the kingdom – their arrival at the site must have seemed overwhelming.

As Egypt had very few roads, the workers sailed in along the Nile, and would have been able to glimpse the pyramids' steep polished sides glinting in the sun over the desert from quite a distance.

Life bustled around the monuments. Long lines of men dragged heavy boulders, surrounded by swirling clouds of dust. The air was thick with smoke from large numbers of bonfires, and resounded with talk and shouts while block after block was heaved into place in the enormous edifice.

As many as two million blocks were required from the huge rocks that were cut from a quarry near the pyramids. The location was by no means random. Giza Plateau is made of limestone – the type of rock that made up the bulk of the pyramids. As the ancient Egyptians hadn't discovered iron, they used copper and flint tools to cut the rock. The work was difficult and tedious. To extract the blocks, which could weigh 20-60 tonnes, the work team first carved out a trench around the stone. Then they cut it free with copper chisels and stone axes, until they could move it using wooden levers. The work was tightly organised; each block was marked out in red paint and labelled with hieroglyphs to indicate which team was to cut it.

Large lumps and bumps were removed with a special saw, which was made of copper, and had no teeth. Instead, the workers put sand in a groove in the stone. As the saw moved back and forth, the sand – which was made of very small pieces of quartz – ground its way into the rock and cut off the unwanted piece. Smaller irregularities were removed with copper or flint chisels. Finally, the block was rubbed



A MILLENNIUM OF PYRAMIDS

After the dawn of the giant monuments, their popularity lasted for 1,200 years. And even after they'd fallen from favour, later Nubian pharaohs chose to build their own pyramids.

2648 BC

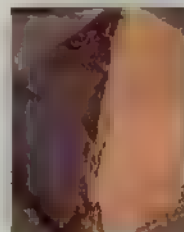
Pharaoh Djoser built the first pyramid. The 62 metre-high monument, a step pyramid, was located in Saqqara, about 30 kilometres south of Cairo.

2649-2637 BC

Pharaohs Sekhemkhet and Khafu, who followed Djoser, built smaller pyramids near Djoser's. Like his, they were step pyramids.

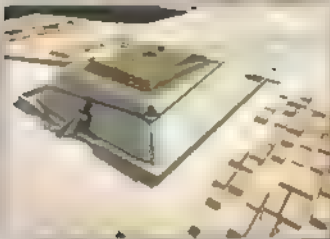
2613-2589 BC

Pharaoh Sneferu built three pyramids before he finally got it right. The pyramid at Meidum began as a step pyramid, but was later given straight sides. The Bent Pyramid at Dahshur, 40 kilometres south of Cairo, changes slope around the middle of the structure, breaking the straight lines. The Red Pyramid at Dahshur became Sneferu's final resting place. The 104 metre-high pyramid was the first to have four perfect symmetrical sides, with the same slope, that meet at the top.



METHOD REMAINS A MYSTERY

Since Herodotus, 2,500 years ago, several theories have been put forward to explain how the heavy stones were lifted, and three of the most plausible persist: the stones were pulled on sledges up a long earthen ramp; or a spiral ramp was used up the sides of the pyramid; or the latest theory, which combines the other two, suggests that an outer ramp went as far as the lower third of the pyramid, then an inner ramp led to the top, where cranes hoisted the stones around the corners.



INNER RAMP

The latest theory, put forward by the French architect Jean-Pierre Houdin, is that only the lower third of the pyramid was built with a long, external ramp. This was much smaller than it would have been if it had reached all the way to the top. The rest of the pyramid (blue in the illustration) was built with a ramp winding around the inside of the pyramid's outer walls. Wooden cranes in the open corners lifted the stones around the bends. There is still no conclusive evidence to prove this theory, but notches found in the corners of the Great Pyramid's stone walls may be traces of the cranes.

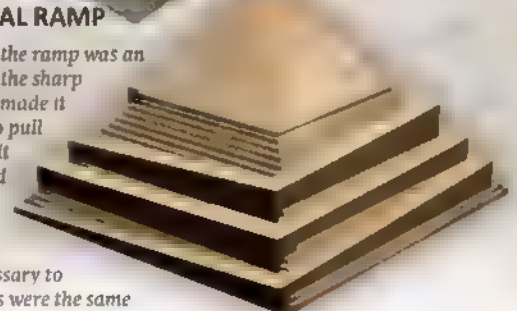
There might have been a crane at each corner

LONG RAMP

One popular theory is that the heavy blocks were pulled on sledges up an external ramp. But the ramp must have had a maximum incline of eight degrees for the workers to be able to pull the heavy stones, making it an incredible 1.5 kilometres long

EXTERNAL SPIRAL RAMP

Others suggest that the ramp was an external spiral. But the sharp corners would have made it almost impossible to pull the stones up. Also, it would have obscured the view of the build, making it difficult to take the measurements necessary to ensure the four sides were the same



2580 BC

Pharaoh Khufu had the Great Pyramid built in Giza. The monument became the first of a series of major projects that helped strengthen Egypt's royal power.

2532 BC

Khafra built his pyramid next to that of his father, Khufu. The building itself is three metres shorter than Khufu's pyramid, but as the ground on which it stands is higher, it appears taller. The pyramid is flanked by the Sphinx.

2503 BC

Menkaure built the last of the great pyramids at Giza. It's only half as big as the others, but was lined with beautiful red granite transported from Aswan, 934 kilometres further up the Nile.

2345 BC

Pharaoh Unas built a pyramid in Saqqara that was only 18 metres high. What it lacked in height, it gained in beauty. The walls of the burial chamber were covered in hieroglyphs carved into the stone to help the pharaoh into the next world.



1745 BC

Khendjer built what was probably the last true classical pyramid, in Saqqara, 1,200 years of pyramid construction were over.

664 BC

Taharqa was a Nubian pharaoh who began a brief period of new pyramid construction in Nuri, in present-day Sudan.



Khendjer built what was probably the last true classical pyramid, in Saqqara, 1,200 years of pyramid construction were over.



PHARAOH'S TOMB WAS HIDDEN

Even in antiquity, the pyramids were robbed by thieves seeking the king's tomb and its precious burial gifts, so the pharaoh's burial chamber was concealed.

■ The pyramids were built as tombs for the ancient Egyptian kings, the pharaohs. And the pharaoh took magnificent gifts with him into his tomb – all he could possibly need in the next life, from food and wine to jewellery, weapons and furniture. So, even when they were newly built, the pyramids were the targets of looting, with

thieves seeking treasures inside the monuments. But it wasn't easy for them, partly because of built-in dead ends and obstacles – large stones that fell down and blocked the way, for example. Also, the plans were often changed during construction; there are several empty chambers in Khufu's pyramid, which might have been

intended for the pharaoh if he'd died before the upper chamber was completed. His sarcophagus is still there, but the mummy and grave goods are long gone. It's possible, of course, that he's in a hidden chamber. If he's ever found, it would be a sensation, so far, only one royal tomb has been found untouched – that of Tutankhamun.



- 1 Sacrifices were made to the pharaoh in the mortuary temple at the pyramid's base.
- 2 There's an unfinished underground chamber 30 metres down. It might have been used in an emergency if the king had died before the pyramid was finished
- 3 The so-called Queen's Chamber. There has never been a queen here – perhaps it was a second contingency plan in case Khufu died during construction
- 4 Three large stones were designed to fall down if thieves tried to get access to the King's Chamber
- 5 An empty granite sarcophagus is all that archaeologists found in the King's Chamber at the top of the pyramid.
- 6 The Grand Gallery leads up to the King's Chamber. It's nine metres high. The tunnel to the gallery was blocked with stones (C).
- 7 The original entrance (A) was located 17 metres up the north side of the pyramid. Ten metres further down is the entrance (B) that grave robbers used.
- 8 At the end of its construction, the pyramid was covered with polished limestone, so it appeared shiny and white
- 9 Today, the roughly hewn limestone – the wall of the pyramid itself – is bare, without any outer cladding.



Large stones were transported on the Nile

■ Around two million blocks were needed for the Great Pyramid, some weighing as much as 20-60 tonnes. Most were limestone, from a quarry close to the pyramids. But for several of the internal structures, such as burial chambers and tunnels, granite from a

quarry near Aswan, about 900 km up the Nile, was used. The incredibly heavy stones were transported to the construction site on boats. The pyramids lay close to the riverbank, so the last part of the journey, when the stones were dragged on sledges, wasn't too far

The heavy granite stones were sailed 900 km down the Nile from the quarry in Aswan to Giza. Workers met them on the bank and pulled the roughly hewn stones up to the site. Calculations show that a gang of 12 men could tow a two-tonne stone



TOOLS WERE PRIMITIVE

The magnificent pyramids were built using very basic tools of stone, wood and bronze. Archaeologists have discovered lots of these tools everywhere the ancient Egyptians built. Some were abandoned because they were broken, others were placed in the pyramid on purpose; the workers believed that they would be used by their spirits to repair the building in the afterlife.

The saw's sharp blade was on its shorter length.



The worker with the axe is both unshaven and long-haired.

The bronze blade on the axe could be replaced.

A stick with string was used to level the base of the pyramid.



>> with sand or a soft stone until it was the correct size and shape

GRANITE WAS QUARRIED

The Egyptians were lucky to have access to copper mixed with tin, which formed bronze, an alloy many times stronger than pure copper. Their chisels, however, still had to be sharpened after just a few blows to the limestone, so the work took a long time and required many hands. Granite

was an even bigger challenge. Neither saw nor flint chisel helped with such hard rock. Completely different means had to be used, and thanks to a large piece of granite – an obelisk that broke before the workers had finished it – we know how. The obelisk was abandoned and today reveals the technique with which it was quarried. As with pyramid construction, the Egyptians solved the problem by being highly organised and using lots of manpower. A line of labourers

simply threw small, hard stones at the granite until a deep trench formed.

Then they continued on the other side of what was to become a building block. To dig under the block, they threw pebbles at it or worked away with chisels until they could lift it free with wooden levers.

The availability of labour was crucial. The fertile land around the Nile Delta provided ample food with relatively little effort, so the kingdom had enough surplus to feed the thousands of workers required for the impressive construction project.

STARS DETERMINED THE LOCATION

But before construction could begin, the builders had to make sure the pyramid would be aligned with the compass points.

The ancient Egyptians were fascinated by the night sky, especially the stars that orbited the North Pole. These stars were always visible, so the Egyptians called them "the ones not knowing destruction." Since the stars were always there, they were associated with eternal life, and the Egyptians believed that the pharaoh, when he ended his earthly life, would join these stars and spend eternity with them.

To ensure that the pharaoh could find his way into the vast sky, the pyramid had to

TECHNOLOGY



CULTURE

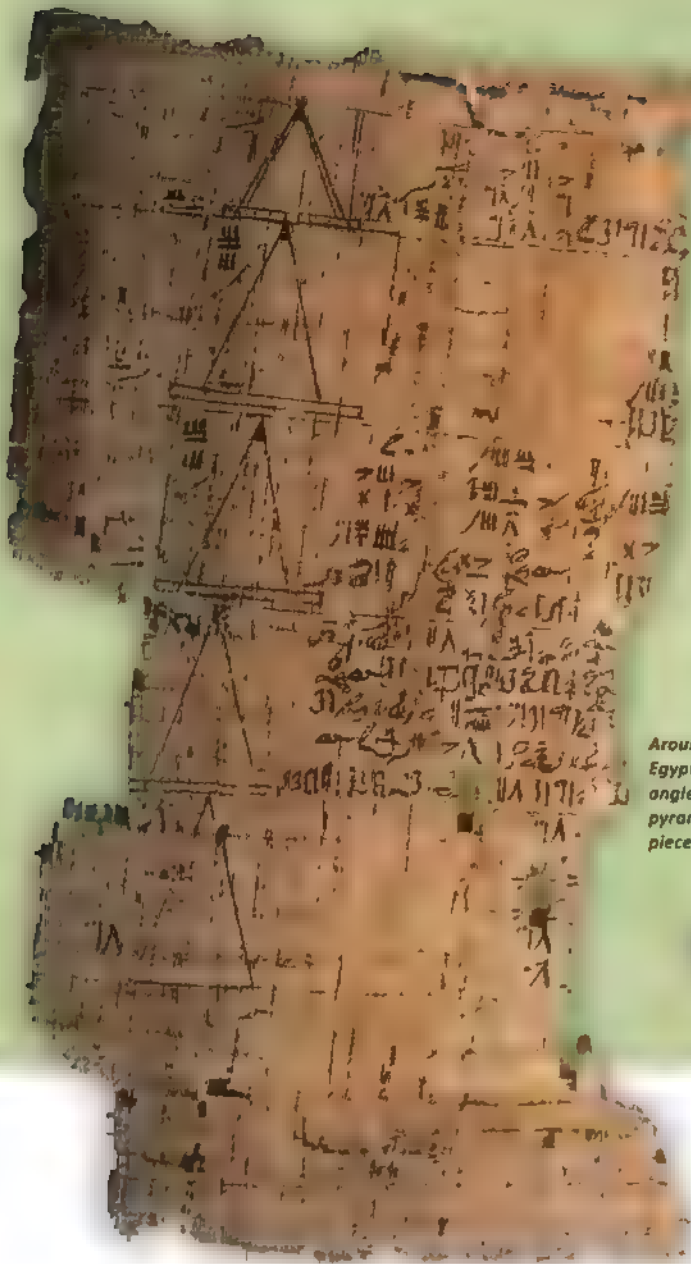
ECONOMY

DAILY LIFE

Workers slept in rows

While the pyramids were being built, they were the centre of a buzzing metropolis that housed tens of thousands of workers. Archaeologists have excavated what looks like large dormitories, with room for 40-50 people in each. The men would have

lain in rows – perhaps in a kind of narrow bunk bed. Archaeologists estimate that up to four thousand people could sleep there. The conscripted men, who came from all over Egypt, typically worked at the site for a few months before returning home.



This axe bears the name of Pharaoh Tuthmose III in hieroglyphs on the blade.

Wooden hammer for striking a chisel.

Around 1550 BC, an Egyptian calculated angles for a pyramid on this piece of papyrus.

Dolerite is a very hard stone that can break even granite.

The tip of the copper chisel became extra hard when heated.

be built so that its sides faced the four points of the compass perfectly, and the entrance was placed directly facing north

Academics dispute how the Egyptians found out so precisely where the compass points lay, but a new theory claims they found north by observing the constellations Ursa Major and Ursa Minor, and calculated the other directions accordingly

Once the location of the pyramid was determined, the foundation was laid. To be stable, the pyramid had to be built so it lay completely horizontally on the ground.

Scholars believe the Egyptians managed this by digging a trench around the area, then filling it with water. Gravity ensured the water was distributed evenly. The workers could then look at the water level and dig the surrounding ground to the same height all the way around to make sure the pyramid base was completely horizontal.

Archaeological research shows that this was incredibly successful. Across the 230

metres from one corner of the Great Pyramid of Giza to the other, the height difference is less than 2.5 centimetres.

It explains how the monument, which is

basically just a huge pile of stones, has been able to withstand over four thousand years of tremors and earthquakes.

But the precision work wasn't over once the foundation was laid. Inside, the stones were put together at random, but the outer blocks had to fit together perfectly. The cladding was made of stone from a quarry in Tura, about 17 kilometres from Giza.

The rock from there was very smooth and fine, and had a special white glow that made the pyramids shine in the sunlight.

The tomb itself and other parts of the interior were built of granite, which was very hard and difficult to work with. The stone was extremely desirable and transported by large barges down the Nile for about 934 km, from the Aswan quarry.

A RACE AGAINST TIME

The construction of a pyramid presented many challenges, which all had to be solved without the schedule slipping. Researchers

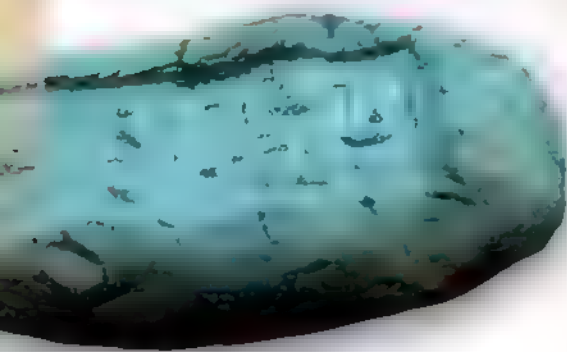
believe that the large edifices took between 20 and 30 years to build. At a time when life expectancy was 40-45 years for men, there was no time to waste if construction was to be completed before the pharaoh died. The architect in charge of the construction of Sneferu's pyramid had great difficulty in getting his monument completed. Only after three attempts - all in the southern part of Giza - did he succeed.

The first pyramid was never used because it was unstable. In the next, the walls of the tomb itself began to crack, and although the workers tried to strengthen them with cedar trunks from Lebanon, this pyramid also had to be abandoned.

Only the last one, whose slope is significantly less than that of the other two, was completed - fortunately before Sneferu died. Egyptologists believe that this last pyramid was completed in record time. German Rainer Stadelmann believed that the construction took 17 years, while Brit John Romer estimated that the mammoth project was completed in just ten years and seven months.

ARCHITECT WITH EMERGENCY PLAN

All this would have been known to the architect when he started Khufu's Great



Clay seal with a cartouche, an oval with the name Khufu in hieroglyphs, found in Khufu's pyramid.

“Engraved in a pyramid stone is a greeting from the Drunkards of Menkaure”

> Pyramid. The person responsible for construction was Hemiunu, a relative of Pharaoh Khufu and grandson of Sneferu.

Archaeologists know the name and title of the architect – “Overseer of all Construction Projects” – from the large burial ground next to the pyramids, where Hemiunu rests in the largest and most beautiful of the tombs.

Thanks to his knowledge, Hemiunu chose a cautious strategy and planned to build three tombs right from the start, so there would always be at least one ready, even if the pharaoh were to die young.

The first was excavated underground, beneath the pyramid itself. After five years of work, with the pharaoh still in good health, construction began on a new burial chamber further up the pyramid. This one was provided with a sarcophagus, prompting archaeologists to call it the Queen's Chamber when they discovered it, because they assumed the room was built for Khufu's wife.

Archaeologists now know that members of the king's family, including his wives, were laid to rest in a burial ground east of

the Great Pyramid. After about 15 years of work, the last burial chamber, which was to house the king's earthly remains, was built near the top of the pyramid.

The ceiling above the chamber consisted of large granite and limestone beams that weighed up to 60 tonnes. Granite was used both because it was considered a particularly attractive stone and because

254.8
tonnes of
pressure per
square metre
above Khufu's
burial chamber

it was the only material that could withstand the enormous pressure from the tip of the pyramid. Academics have calculated that the pressure from the huge amounts of stone above the burial chamber is 254.8 tonnes for every square metre of ceiling.

So, the construction workers installed five chambers with cross-beams above the burial chamber to distribute the weight and reduce the pressure.

WORKERS WROTE GRAFFITI

During their excavations, archaeologists found something surprising. There, in the small rooms that the workers had never expected anyone to visit again, the men had given themselves a small slice of secret immortality in the form of inscriptions. On a stone block was engraved the king's cartouche – an oval containing the pharaoh's name in hieroglyphs – and then some scrawls, which have been interpreted as: “Friends of Khufu”.

In other pyramids, archaeologists have found similar graffiti. For example, Pharaoh Menkaure's pyramid hides a greeting from “Drunkards of Menkaure”, engraved in stone and painted red.

Historians believe that the shift teams worked in pairs of gangs, which in some cases worked in competition on opposite sides of the pyramid.

On the whole, the work was carried out in a cheerful atmosphere, archaeologists believe, explaining that Egyptians had a great sense of community, which was also seen in the villages, where people liked to lend a hand in communal tasks.

The settlement that grew up around the pyramid complex was not a typical one. Compared to others in Egypt, the town, with tens of thousands of inhabitants, was enormous, and there was a big difference in lifestyle and standard of living.

In the eastern part of the town, people lived as they would have in an ordinary

village. Here, for example, they ate lots of pork – archaeological finds have discovered that pork was part of a typical village diet. In the western part of the settlement, on the other hand, the houses were larger. This is where officials and the construction site managers lived. Among them were the most important men of the time, such as the king's scribes.

Newly arrived workers and goods were registered in this part of the town before they went to the construction site itself, and copper was weighed before it was taken to the toolmaker, so officials could ensure that none of it was stolen.

SKELETONS TESTIFY TO HARD WORK

The construction was well organised, and there was plenty of beer and bread for the labourers. But the work was hard. This is evident from the hundreds of skeletons that archaeologists have found at a burial site near the pyramids.

Most workers suffered from arthritis and had compressed lumbar vertebrae – a sign of severe physical wear and tear. Many of the skeletons also bear signs of injuries that must have happened during construction.

For example, one had broken his leg and had it fixed, and then lived for another 40 years or so. Also, a worker and an official were both apparently involved in the same type of accident. At least, at some point they each had a serious lesion on their forearm that caused the local doctor to amputate the arm just below the elbow. It appears that they both received the same level of care despite their different statuses, and they both lived for several years after their accident.

The builders of the pyramids, who would have ultimately been the pharaoh, clearly had respect for the labourers – “the exquisite hands” who constructed the Egyptian monuments.

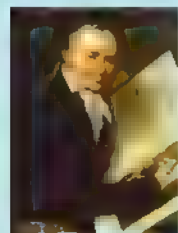
The Egyptians managed to build over 130 pyramids before the spectacular tombs went out of fashion around 1745 BC.

None was as magnificent as the Pyramid of Khufu. For a period in the middle of the second millennium BC, graves were even hidden away in cave-like chambers in the Valley of the Kings, where vain attempts were made to hide the Egyptians' riches from grave robbers, who'd quickly found their way inside the pyramids. By this time, however, the pyramid builders had already made their monumental, immortal mark on the landscape along the Nile. ■

EYEWITNESS

VIVANT DENON / artist, 1798

TRANSPARENT PYRAMIDS



“At the first dawn of day I again saluted with my eyes the pyramids, and took several views. ... I wished to be able to draw them with that ... transparent hue which they derive from the immense volume of air that surrounds them; this is a peculiarity belonging to these monuments, which they owe to their great elevation; for the vast distance at which they are distinguishable renders them almost transparent, and the blue tint of the sky causes their angles to appear sharp and well defined, though they have been rounded by the decay of years.”

THE FIRST, THE BEST AND THE BIGGEST

The custom of building a giant monument to the pharaoh developed over a few centuries before the pyramid found its final, perfect geometric shape.

PHARAOH DJOSER 2667-2648 BC

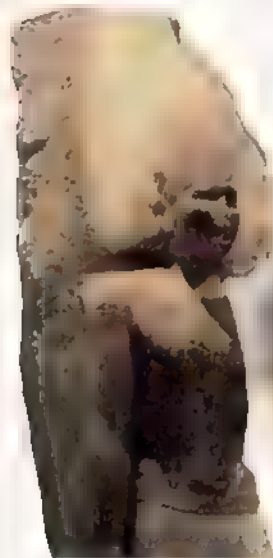
■ **First:** Djoser's pyramid, with six steps, was the earliest.

■ **Pharaoh:** Djoser was the second pharaoh of the Third Dynasty and founder of the Old Kingdom.

■ **Pyramid:** It was the architect and builder Imhotep who had the idea to build the 60-metre-

high step pyramid in Saqqara. It became the first of a total of 97 known pyramids. It covers an area of 115 by 100 metres, and the pyramid itself consists of six large steps. Unlike later pyramids, Djoser's burial chamber is not located in the building itself, but approximately 28 metres below ground level.

Pharaoh Djoser was the first to want a giant stone monument as a tomb.



With the construction of the Bent Pyramid, Pharaoh Sneferu's architects rejected the step pyramid and developed the design that later became the straight, smooth pyramid.

PHARAOH SNEFERU 2613-2589 BC

■ **Best:** Sneferu decided to put stones between the steps of the pyramid to make it smooth.

■ **Pharaoh:** Sneferu was the son of Pharaoh Hun (2637-2613 BC) and one of Hun's lower ranking wives. He married his half-sister Hetepheres.

■ **Pyramid:** Sneferu had a total of three pyramids built, and they were all advances on the way to the perfect, smooth pyramid: the pyramid at Me dum, which was originally a step pyramid, then altered to become smooth; the Bent Pyramid at Dahshur, which was built in a whole new way; and the Red Pyramid, also in Dahshur.

PHARAOH KHUFU 2589-2566 BC

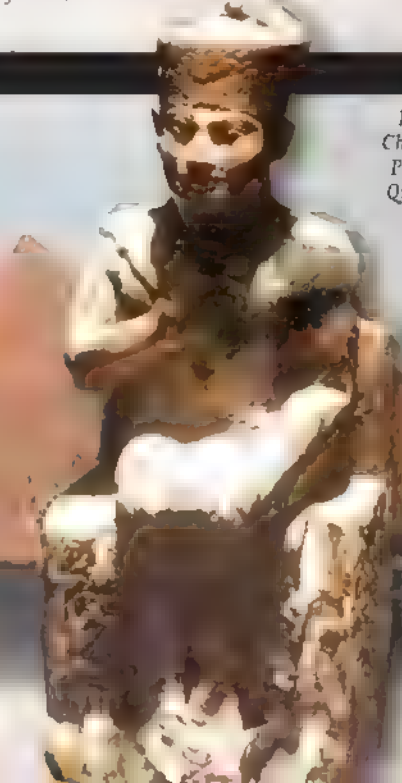
■ **Biggest:** Khufu built the largest of the pyramids at Giza.

■ **Pharaoh:** Khufu was Sneferu's son. He gained a reputation for being ruthless.

■ **Pyramid:** The architect was the pharaoh's relative Hemiunu, and

during the construction, he prepared three tombs, so there would always be one ready in case the pharaoh died young. The 146-metre-high building was the world's largest and tallest for millennia. It was originally clad with smooth limestone slabs.

Pharaoh Khufu (aka Cheops) was the son of Pharaoh Sneferu and Queen Hetepheres. He continued his father's ambitions as a pyramid builder by erecting the biggest of them all on the Giza Plateau.

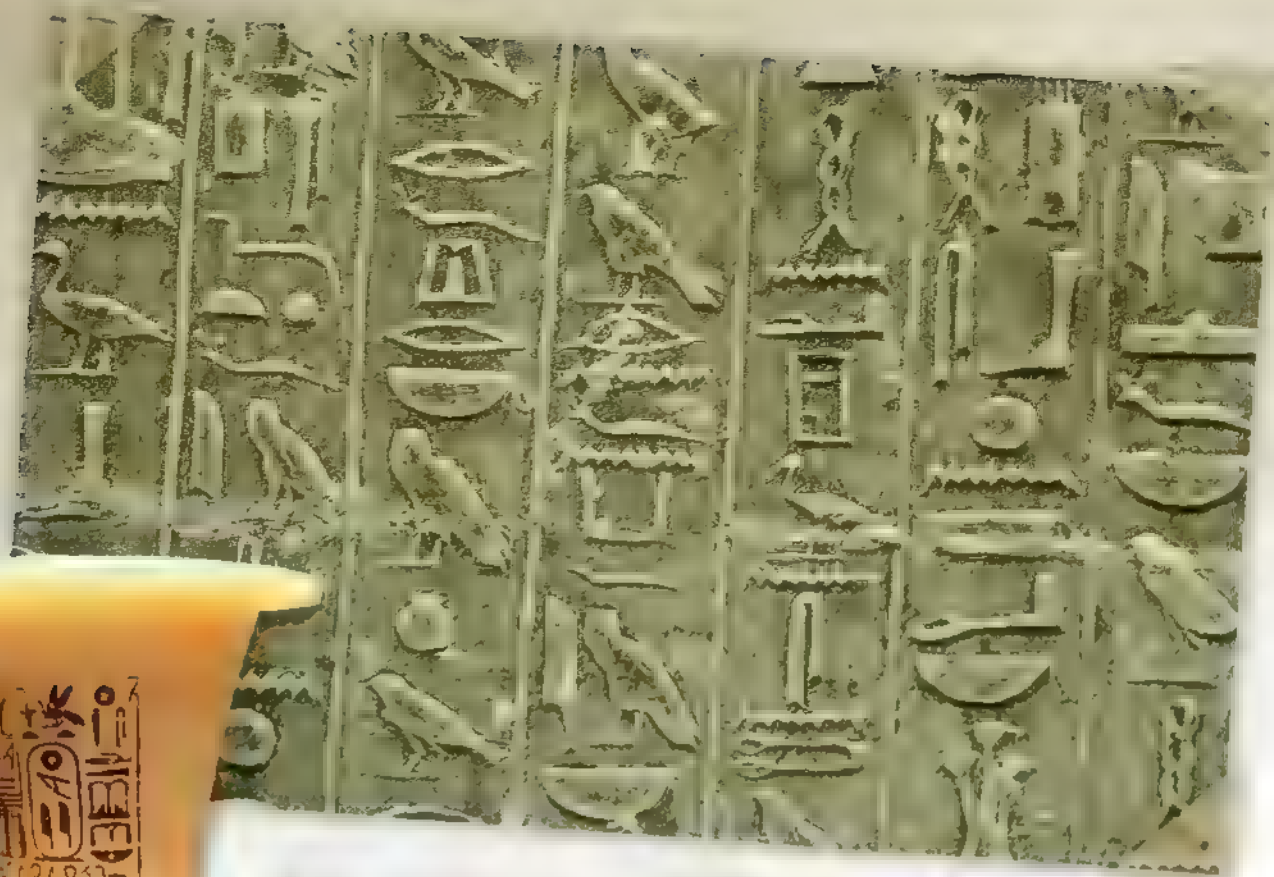




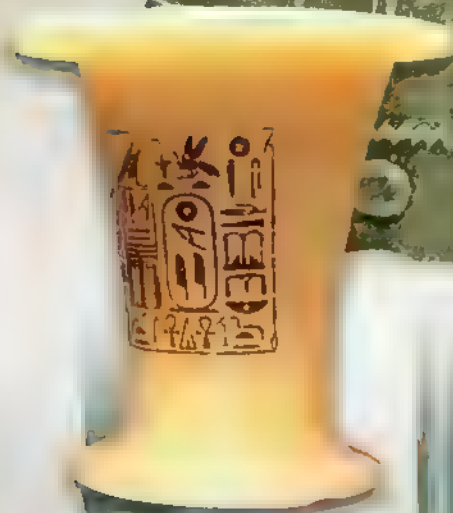


THE THREE KINGDOMS

The pharaohs ruled their mighty kingdom along the Nile for three millennia. During this time, ordinary Egyptians lived through both periods of upheaval and times of stability, when culture was able to flourish. Three eras stand out for their magnificent buildings and powerful kings, namely the Old, Middle and New Kingdoms. The periods in between were marked by civil war as well as attacks from belligerent neighbours.



Hieroglyphs: Already established before the Old Kingdom, the Egyptians wrote using this highly developed pictorial language. These hieroglyphs were engraved on the wall of the tomb of Vizier Ankhmahor.



Offering vessel: "Long live the king" is written on this vessel that belonged to Pharaoh Pepi I Meryre.

At school: Scribes spent up to 12 years learning hundreds of hieroglyphs.



Glass eyes: This statue of Prince Rahotep is an example of contemporary craftsmanship. The eyes are inlaid with quartz.



Nile boats: Flat bottomed riverboats have been used for war, transport and fishing since the formation of the Old Kingdom.

EGYPT

MEMPHIS

ABYDOS

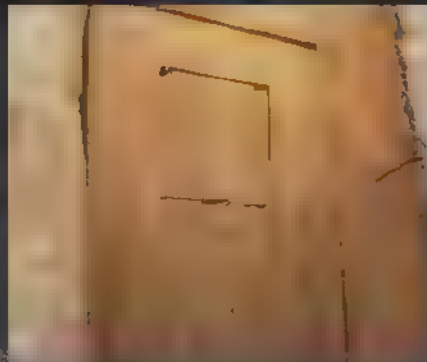
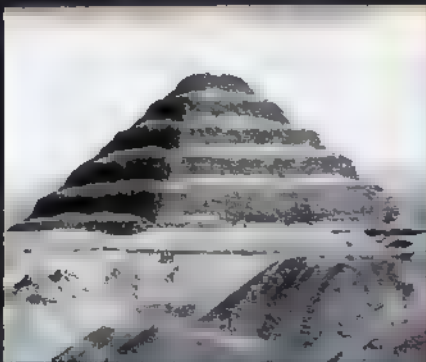
THEBES

ABU

THE OLD KINGDOM 2686-2160 BC

■ The pharaohs in the Nile Valley established a centrally controlled kingdom to collect taxes and recruit manpower for construction projects. The first architectural behemoths, such as the Pyramid of Djoser, the Sphinx and the Great Pyramids at Giza, all rose from the desert sands. While artisans and slaves worked on the building sites, traders flocked to big cities like Thebes and Memphis.

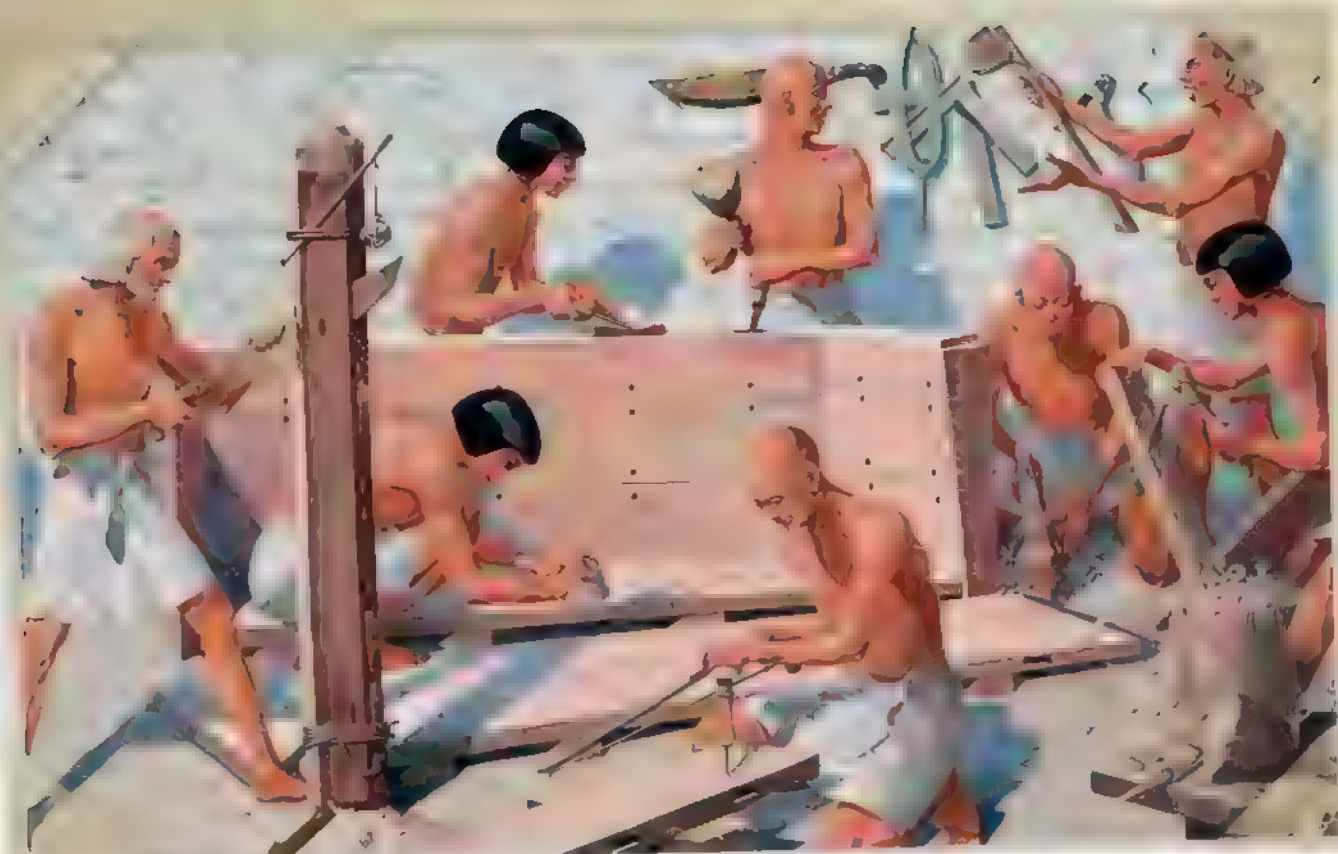
Playing piece: Egyptians liked to spend their free time playing games. This limestone dog figure is a game piece.



TOMB Egypt's oldest pyramid was built for Pharaoh Djoser in 2650 BC. His burial chamber is situated 28 metres underground.

Royal tombs were equipped with false doors through which the spirit of the deceased could pass.

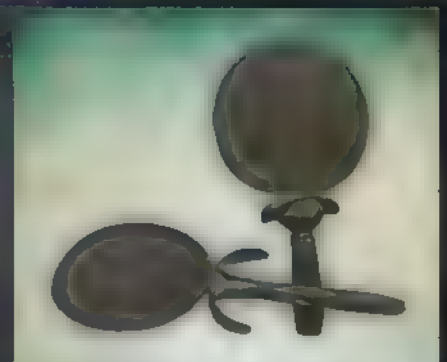
Archaeologists uncovered a labyrinthine system of passages beneath Pharaoh Djoser's tomb.



Coffin construction: Timber was an expensive commodity in the desert. But when an upper-class Egyptian was buried, price was no object. These carpenters are constructing the deceased's coffin.



Company in the afterlife: Rich people were accompanied to their graves by small models of warriors and servants. The Egyptians believed that the figures were brought to life in the afterlife.



CRAFTS Egyptian jewellers were known for their craftsmanship. The tilapia fish, which protected its eggs in the mouth, was a popular amulet design.

Brilliant gemstones such as lapis lazuli and turquoise were inlaid into gold jewellery.

Polished bronze discs were used as mirrors, mounted on handles shaped like papyrus.

EGYPT

MEMPHIS
FAIYUM

ABYDOS

THEBES

ASWAN

BUHEN

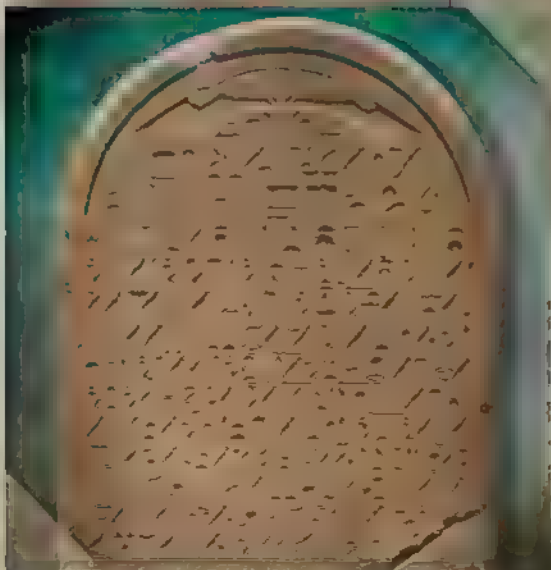
THE MIDDLE
KINGDOM
2055-1650 BC

■ After a century of unrest and civil war, Pharaoh Mentuhotep I succeeded in reuniting the kingdom and restoring single, centralised rule. Mining, pyramid construction and artisan products once again flourished. A large area near the oasis city of Faiyum was drained to allow the Egyptians to expand agricultural land.

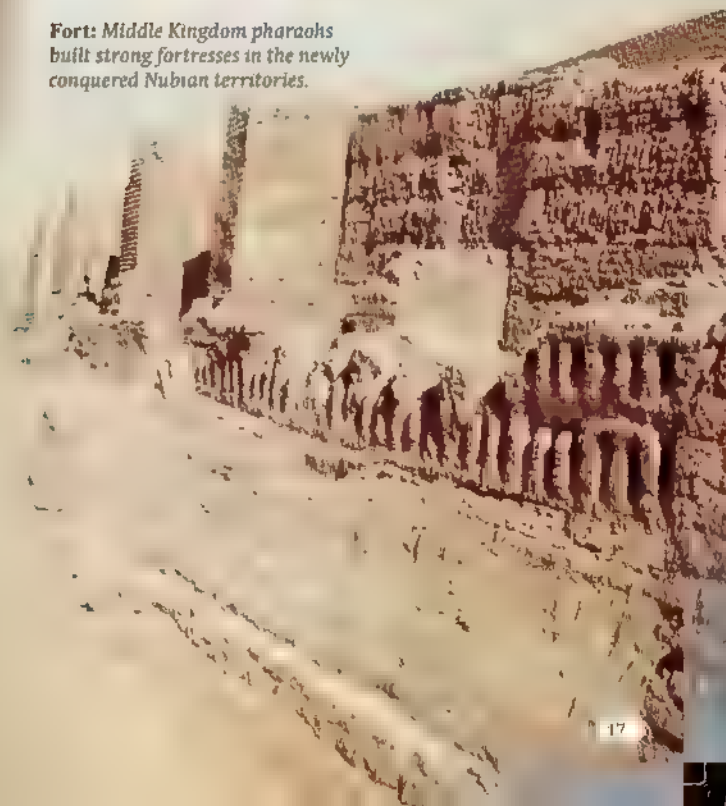


Amulet: Hippos were life threatening. Ceramic amulets protected against them.

Fort: Middle Kingdom pharaohs built strong fortresses in the newly conquered Nubian territories.



Border post: The conquest of parts of the kingdom of Nubia expanded the Egyptian empire to the south. This stone tablet marks where the border was situated around the year 1860 BC.





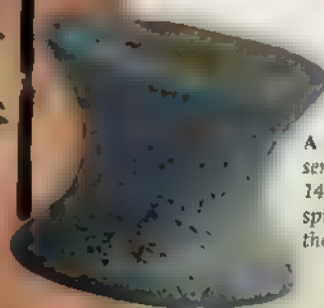
Mapping: This papyrus sheet charts the locations of gold mines and limestone quarries. It's considered to be the world's oldest map



The Sun King: Pharaoh Akhenaten decreed that citizens could only worship the sun god and his representative on earth – the pharaoh himself



Valley of the Kings: The rulers of the New Kingdom were no longer laid to rest in pyramids, but were buried in underground tombs in the Valley of the Kings.



A piece on the move: The senet board game needed 14 pieces. It symbolised the spirit on a journey through the underworld.

Game board: Senet was one of ancient Egypt's most popular board games. Here, Pharaoh Ramesses II's queen Nefertari is depicted playing the game, which held religious significance in addition to its entertainment value.

EGYPT

GEBEL BARKAL ●

MEMPHIS ●
FAIYUM ●

● PI RAMESSES

● ABYDOS

● THEBES

● ABI

● BUHEN

THE NEW
KINGDOM
1550-1070 BC

■ Egypt experienced growing pains as warring pharaohs went on campaigns to all corners of the world, bringing back treasures such as gold, precious stones and prisoners of war. Never had the kingdom been more powerful. But corruption and pressure from hostile neighbours eventually led to the end of Egypt's greatness.



Acrobat: The aristocracy bought dancers to entertain them at banquets

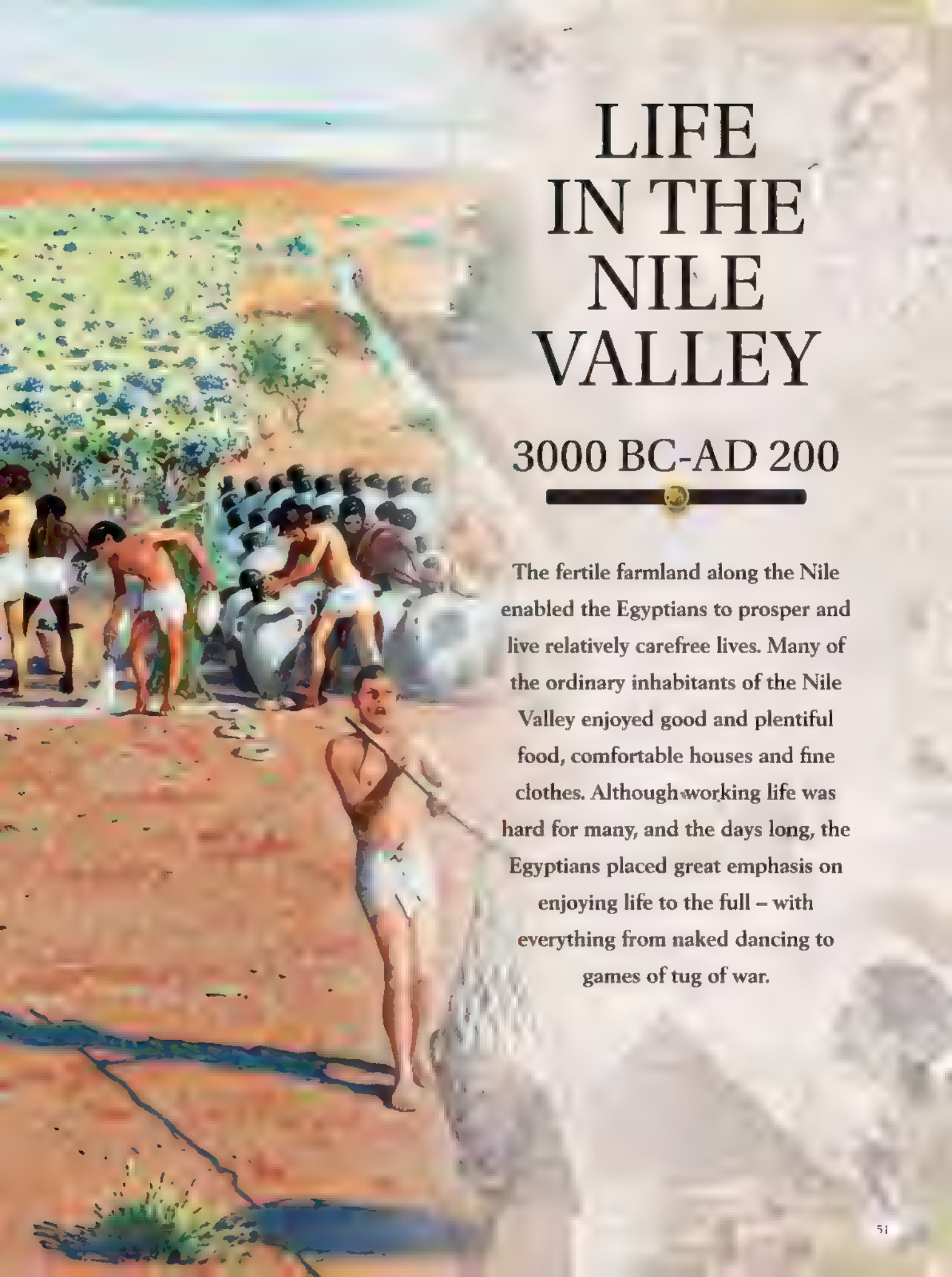


WEALTH Child pharaoh Tutankhamun's tomb was filled with gilded handicrafts. Here he is in the company of his queen.

Tutankhamun could pay the best artists to immortalise him in gold from Nubia.

In 1922, archaeologist Howard Carter found his tomb, which revealed 3,500 offerings



The background of the page is a colorful illustration of an ancient Egyptian scene. In the foreground, a man in a white loincloth is pulling a large fishing net. In the middle ground, a group of people are working with large white sacks, possibly harvesting or storing grain. In the background, there are green fields and a line of trees under a bright sky.

LIFE IN THE NILE VALLEY

3000 BC-AD 200

The fertile farmland along the Nile enabled the Egyptians to prosper and live relatively carefree lives. Many of the ordinary inhabitants of the Nile Valley enjoyed good and plentiful food, comfortable houses and fine clothes. Although working life was hard for many, and the days long, the Egyptians placed great emphasis on enjoying life to the full – with everything from naked dancing to games of tug of war.

3000 BC-AD 200

c. 3000 BC

Egypt is united into one empire, eventually with one main culture.

2686 BC

Egypt's golden age: the Old Kingdom is established.

c. 1300 BC

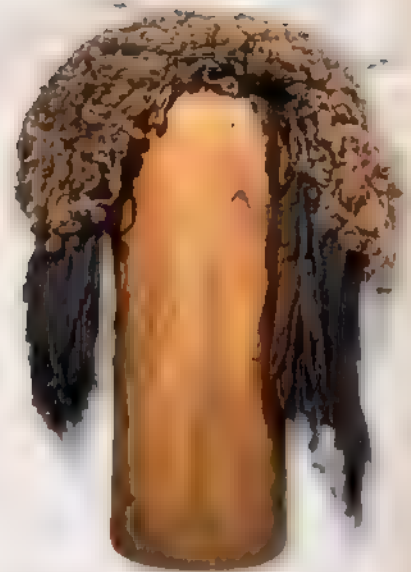
Black replaces green as the most popular colour for eye makeup.

325 BC

Alexander the Great mints the first Egyptian coins.

c. AD 200

Christianity begins to make changes to Egyptian culture.



Wigs served as status symbols and were considered more refined than any haircut

Parties in ancient Egypt often ended with what today seems like a macabre ritual: a small coffin with a fake mummy was mournfully carried in a procession between the stuffed, happy guests. The purpose, however, was not to kill the mood. On the contrary, the rite acted as a reminder of how short and fragile life was, and the importance of enjoying it while you could – a doctrine that permeated the minds of the Egyptians.

The fertile soil along the Nile Delta secured so much wealth and prosperity that the Egyptians had a surplus. This enabled them to develop a society that was capable of supporting art and culture, and that gave the land's inhabitants a comfortable lifestyle – at least, it did for those who belonged to Egypt's free middle class.

The middle class made up almost half of the strictly hierarchical society. They had to submit to the pharaoh's power, but they ruled absolutely over the serfs and slaves at the bottom of Egyptian society. However, the number of serfs – mainly tenant peasants – decreased throughout the kingdom's history, as the country became richer, and more serfs were set free or worked their way up through society. The slaves were mainly prisoners of war and their descendants, and their numbers grew in line with Egypt's foreign conquests.

The free citizens were civil servants, soldiers, priests, free peasants and artisans. They weren't free in the modern sense – political co-determination did not exist in ancient Egypt – but they could freely buy land, property or animals, and were free to

decide what they wanted to do. Talented sons of peasants often became civil servants or priests.

WOMEN COULD HAVE CAREERS

Freedom also applied to women, who in many respects were equal to men. Free women, for example, had the same rights as free men and could own both property and land. As in most other ancient cultures, women were seen primarily as wives and mothers, but thanks to Egypt's prosperity, the task of raising children was affordable compared to less affluent parts of the world. And since the Egyptians rarely

lacked food, women weren't pressured into having lots of children to help provide for the family. Contraception was therefore widespread. A papyrus scroll from 1500 BC shows how acacia extracts, dates and other plants mixed with

Workers went on strike in 1150 BC – probably for the first time in history – while building the tomb of Ramesses III.

plant fibres and honey could be formed into a pessary. Modern researchers believe this would have been quite effective, as acacia has spermicidal qualities.

This relative freedom meant that some women escaped their traditional hard-working role of providing food for the family, allowing them to pursue a professional career instead. Grave goods from throughout the kingdom's



Beef was rarely eaten and its use was often associated with religious rituals.

with dismay at the Nile's liberated women, the Greek historian Herodotus (480-420 BC) indignantly noted that Egyptian women "go to the market and keep shop while their husbands stay at home and weave", adding that Egyptians had "established for themselves manners and customs in a way opposite to other men in almost all matters".

CHILLING ON THE TERRACE

Women also enjoyed something close to equality in marriage. Upon marrying, both the bride's and groom's families had to offer something to the other, and while the bride's family had to pay an ongoing dowry to compensate the man, who now had to feed an extra person, there were strict conditions: if the woman was ill-treated, the cash stopped. Also, if the couple divorced, the husband had to maintain his ex-wife until she got a new husband, even if she was the one who had sought to end the marriage.

Divorce, however, was rare. As in many other cultures, marriage was used to unite families and provide for women, children and the elderly, but historians believe that

Women worked in a variety of jobs in ancient Egypt. The weavers in this model workshop are producing cloth that will be laid in a tomb alongside their deceased owner.

TECHNOLOGY

CULTURE

ECONOMY

DAILY LIFE



Statues settled legal matters

For ancient Egyptians, the gods were as real and present as the sun, the sky and other everyday things that surrounded them in their daily life. Sometimes, the gods even intervened in earthly life in a very tangible way:

archaeologists have found writings that claim that the statues of the gods could nod – presumably helped by priests pulling on cords – and even 'speak'. This enabled the statues to settle lawsuits and reveal those guilty of theft.

“Records show that men
and women received equal pay
for equal work”



“Artisans never signed their works”

Beer was an everyday drink for most Egyptians, and a wealth of beer brewing images have been found.

Egyptian marriages were often genuine love matches. This was important because men and women spent a lot of time together at home, which formed a focal point in the life of every Egyptian.

Everyone, except the very poorest, had a house, and they were both spacious and comfortable. Virtually all houses were built according to the same plan: a wall enclosed a small garden with a cool central pool, which was used to water the surrounding trees and shrubs. Both the wall and the house itself were built of 'bricks' made of sun-dried mud from the Nile mixed with straw or sand. The sparsely decorated rooms were small with high windows that allowed the heat to escape. Families spent most of their time on the raised covered terrace in front of the house, where they could enjoy any breeze that stirred

WEEKEND CAME EVERY TEN DAYS

Most of the Egyptians worked as peasants, either for themselves or for an overlord. But there was a wealth of jobs to choose from for middle-class free Egyptians from wigmakers to construction workers. The most privileged were the scribes. They were among the few who received an education and thus secured access to trusted positions. The luckiest gained important posts in the army or on the royal construction projects, but the majority spent their life working as office assistants and accountants. Unlike most other Egyptians, however, they were guaranteed a day off every ten days

Far harder was the life of the craftsmen and artisans, whose dirty work was despised, especially that of the blacksmiths.

"I have seen a smith working in the furnace mouth. His fingers are like crocodile claws; he stinks more than fish roe," wrote one scribe, who was equally dismissive of other artisans: "I have never seen a sculptor sent on an embassy, nor a bronze founder leading a mission"

Artisans never signed their works, and their creations – even the most beautiful works in gold, silver and bronze – were included in temple gift inventories alongside more mundane goods such as grain, beer and cattle. While historians can still name a few artisans, that is solely due to the knowledge they have gained through excavations and studies of the craftsmen's houses or burial chambers. Craftsmen were seldom self-employed in the true sense of the word, but worked

In their spare time, Egyptians hunted along the Nile Delta. For the rich, it was mostly for sport, but the poor hunted to supplement an otherwise meat-poor diet with game.

for temples, large landowners, nobles or, if they were lucky, for the royal household. Most often, they worked for food and shelter, and there were strict controls to ensure that they did not steal the precious metals they occasionally worked with

Of all the occupations, the miners' was the hardest. In fact, the work was so gruelling that at times it was used as punishment for serious crimes. In opencast mines or narrow passages underground, the workers chopped blocks of limestone, which, for much of ancient Egyptian history, was the

preferred building material for monuments and public buildings. The workers who dug underground worked constantly in a thick, dusty darkness, only sparsely lit by flickering oil lamps. Those who dug for gold and precious stones had it worst. They had to follow seams deep into the ground, where they lay on their stomachs chopping away at the walls of the narrow



passages. As there was seldom time to brace the tunnels, the men were in constant danger of being crushed by cave-ins.

Preferable by far were the lives of the marshmen. They probably had the freest lives of all the ancient Egyptians. They lived in the Nile Delta with their families, where they cut papyrus, which they sold to papermakers. Naked, or in simple loincloths, they spent most of their working lives up to their knees or ankles in water cutting papyrus reeds. The marshmen also used papyrus to build their houses, as well as boats that they sailed out on to the river, where they caught fish and birds, which they ate for their meals.

ROAST PORK SANDWICHES

Fish and birds caught on the Nile, or from the lake near Fayum, formed an important part of the diet for other Egyptians, too. Meat was not everyday food, not even in the pharaoh's household. Beef was out of the question for ordinary people—a cow cost the equivalent of a year's salary for a

craftsman or a full year's harvest for a small farmer. A goat was a sixth of the price, which meant that goat meat was often served at weddings, or celebrations for a child. The Egyptians also liked to eat pork, and Greek author Athenaeus, who lived in Egypt, penned history's first description of a roast pork sandwich:

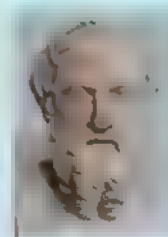
"Each diner is served with a loaf of pure wheat bread, moulded flat. Upon which lies another loaf, which they call oven-bread, also a piece of swine flesh."

A special opportunity to get extra protein came every time the Nile receded after flooding its banks. The ebbing waters left large numbers of fish flapping in the mud, just ready to be gathered and eaten. Turtle and crocodile meat was also consumed with gusto, but otherwise bread and beer formed the basic diet of both the rich and poor. The Egyptians did not want for calories, however. Historians estimate that the average Egyptian consumed around 3,780 calories a day from grains alone—a much higher intake than today.

EYEWITNESS

HERODOTUS/c. 450 BC

MARSHMEN LIVED A FREE LIFE IN THE NILE DELTA



“The byblus (papyrus), which grows year after year in the marshes, they pull up, and, cutting the plant in two, reserve the upper portion for other purposes, but take the lower, which is about a cubit [45cm] long, and

either eat it or else sell it—to enjoy the byblus in full perfection, bake it first in a closed vessel, heated to a glow. Some of these folk, however, live entirely on fish, which are gutted, then hung up in the sun. When dry, they are used as food.”

➤ when the average man typically eats 2,500 calories per day. The fact that very few Egyptians were overweight, and the state of health in the Nile Valley was generally good, was partly because the Egyptians did hard physical work, and partly because they also ate plenty of high-fibre foods.

Garlic and onions, peas, beans, lettuce, cucumbers and lentils were on almost every dinner table. Everything was prepared with the spices that characterised Egyptian cuisine: anise, mint, cumin, dill, rosemary and thyme. For ordinary people, the meal was accompanied by beer, which was safer to drink than the water, which was often contaminated with microorganisms, or by human and animal excrement. The more affluent drank wine, and the Egyptians enjoyed a good drink.

An Egyptian proverb from 2200 BC claimed that "the mouth of a perfectly contented man is filled with beer", but intoxication to the point of senselessness, was frowned upon:

"Boast not that you can drink . . . a jug of beer. Thou speakest, and an unintelligible utterance issueth from thy mouth. If thou fallest down and thy limbs break there is no one to hold out a hand to thee. Thy companions in drink stand up and say: 'Away sot!'" the scribe Ani warned imbibers around the year 1250 BC.

For dessert, the Egyptians enjoyed sweet fruits like grapes, figs, melons and dates. A special delicacy was cakes made with ground-almond flour, honey and dates. The official Rekhmire, who lived during the New Kingdom era, was so fond of these cakes that he had the recipe for them written on the wall of his tomb so that he could be sure of getting his favourite treat in the afterlife.

MEDICINE MADE FROM STATUES

Although the Egyptians largely lived comfortable and healthy lives, they did suffer from a number of ailments. The constant inhalation of sand led to a condition similar to black lung disease,



Egyptian boys wore their hair in a distinctive style, with a shaved head and single plait on one side.

which affects modern-day coal miners. At the same time, the sand wore down their teeth, which resulted in decay and abscesses. Bad breath was therefore a common disorder, which was combated by small tablets made by boiling a mixture of incense, myrrh and cinnamon with honey. Schistosomiasis – a disease caused by parasitic worms in the Nile – also plagued the Egyptians, damaging their livers.

Medics tried to cure the various ailments with a mixture of magic and herbs.

They believed in a "principle of similars" where some essential component to life and good health could be substituted by an object that shared one of its

properties. For example, a powdered statue, mixed with honey and leaves, was used to combat a discharge from the eyes, because it was assumed that the solidity of the statue could be transferred to the eye to stop it running. A more effective drug was honey, which is still known

for its antibacterial properties today. Likewise, some of the herbs worked, too

HUNTING AND BULLFIGHTS

In their free time, many Egyptians liked to go hunting. Egypt's climate was less arid in ancient times, and the Nile region contained many wild animals. Gazelles, antelopes and wild donkeys were eagerly

hunted and later enjoyed at the dinner table. Another pastime was bullfights – a test of strength between two bulls, which attracted a large audience. Both children and adults also met in convivial competitions, such as wrestling or a tug of war. In quieter times,

the Egyptians played board games.

Parties and gatherings were also popular. The Egyptians gathered with friends and family at home, where they enjoyed good food and drink, singing and music. Mandolins, flutes, harps, drums and tambourines were all well known instruments. At larger festivities, professional dancing women performed. They were usually naked except for a thin sash around their waist. They wore weighted beads in their hair to give it extra swing.

BOTH SEXES WORE MAKEUP

Both men and women placed great emphasis on beauty and personal care. They bathed and perfumed themselves, and removed unwanted facial and body hair with razor blades and tweezers. Their clothes were simple, but of good quality – usually of fine Egyptian cotton or, in the winter months, wool. For everyday wear, men wore a loincloth, which went from the waist to the knees, and nothing else, while the women dressed in simple, tight-fitting dresses. Both sexes artfully wrapped themselves in a sari-like cloth for special occasions.

White has been the preferred clothing colour throughout most of Egypt's history. Fine cotton, bleached under the Saharan sun, was in high demand. To



This prosthetic toe was probably worn in life as well as after death.

TECHNOLOGY

CULTURE

ECONOMY

DAILY LIFE



Egyptians bartered for everything

The ancient Egyptians didn't use money; they bartered for everything. The process was tricky, as both parties needed to have something the other wanted. Records show how an ox was once exchanged for four tunics – two fine

and two plain – as well as ten sacks of grain and some pearls. Copper and silver were traded at times, but the metals were rarely used as a form of payment. Coins only became widespread in Egypt after foreign conquests.

set off the all-white garments, both sexes wore eye-catching jewellery made of gold and precious stones: rings, necklaces, bracelets, ankle chains and earrings. Both men and women also used heavy eyeliner, which was applied with a stick of wood or bone, and drawn all the way to the temple to highlight the eyes. Originally, the preferred eyeliner colour was green, which the Egyptians associated with health, but later the fashion changed to favour black. The green pigment was made from ground malachite, while the black came from powdered galena. Both were mixed with fat

into a paste. The same was true of the ochre used to colour their lips red.

The hair of both sexes was carefully cut. Men could have

short or shoulder-length hair, often in stepped layers or skilfully styled with short hair at the back and long locks at the front. Women always had long hair, often cut in layers to give it life and volume.

Braids and twists were also popular among Egyptian women, while children had very special hairstyles. Boys had their hair shaved off, except for a long plait on one side. Girls had the same long plait on one side, but the rest of their hair was cut to collar length.

No matter how artful the hair was, however, wigs were *de rigueur*. The wigs, made of natural hair, were worn so that the wearer's own hair was still visible. Everyone had to be able to see that the wearer could afford such beautiful hair. Some even wore

two wigs, one on top of the other. Both wigs and natural hair were held in place using beeswax. On special occasions, the women also wore a cone made of grease that had been impregnated with perfume on top of their heads. As the fat melted during the evening, the fragrance was released.

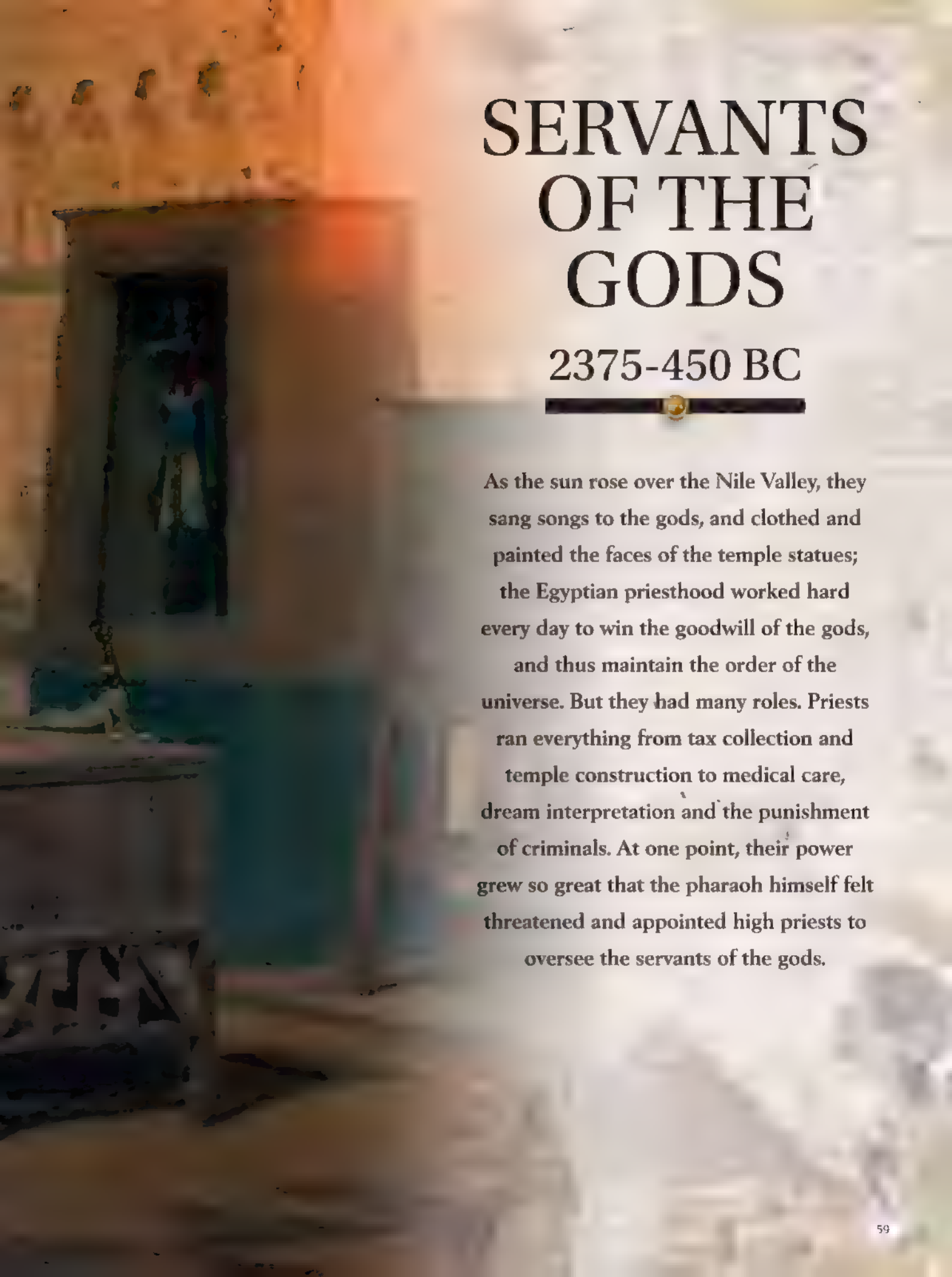
THE CULTURE LIVED FOR MILLENNIA

The Egyptian culture and way of life were to prove unusually resilient. For millennia, the Egyptians' everyday life hardly changed at all. Even under first Greek and then Roman rule, life in the Nile Valley carried on much as it always had. Only with the growing spread of Christianity from AD 200 onwards did life and customs begin to change in earnest. ■



When the Egyptians really wanted to party, they hired naked dancing women.





SERVANTS OF THE GODS

2375-450 BC

As the sun rose over the Nile Valley, they sang songs to the gods, and clothed and painted the faces of the temple statues; the Egyptian priesthood worked hard every day to win the goodwill of the gods, and thus maintain the order of the universe. But they had many roles. Priests ran everything from tax collection and temple construction to medical care, dream interpretation and the punishment of criminals. At one point, their power grew so great that the pharaoh himself felt threatened and appointed high priests to oversee the servants of the gods.

2375-450 BC

2375-2345 BC

The Pyramid
Texts describe
the order
of the universe.

20th century BC

Construction of
the Temple
of Karnak in
Thebes begins.

12th century BC

Priests begin
working
full-time in
the temples.

1166 BC

The Temple
of Karnak
has 81,322
employees.

450 BC

Herodotus
describes
the
priesthood

Amulets shaped like scarabs symbolised life, rebirth and the sun god Amun-Ra. This one belonged to the Amun priest Bak-en-Djehuti.

According to the ancient Egyptians, the gods had created the order of the universe, which they also kept in balance. The Egyptians gave a name to the harmony that existed between all the elements and beings of the world, living and dead, between the passage of time, night and day, and the rhythm of the life-giving floods of the Nile: *maat*. The order of the universe was constantly in danger of being hit by chaos, and to uphold *maat*, the gods needed earthly helpers. They appointed the pharaoh – the mighty ruler of the kingdom – as a shepherd to watch over the course of life on Earth. He was to be the link between the gods and the people.

Egyptian murals and reliefs show pharaohs laying the foundation stones for temples and worshipping the gods through sacrificial rituals. But in practice, of course, the pharaoh couldn't be in every temple at once. In order to control the kingdom and satisfy the gods, the ruler had to delegate tasks to a group that came to run Egyptian society: the priests.

Egyptian priests differed from those of later periods and religions because they didn't preach a faith or act as spiritual guides to the people. Religion wasn't a personal matter in ancient Egypt, and all worship of the gods went through the clergy. Egyptians believed that the gods took up residence in the temple statues, and the priests' noblest task was to care for them through rituals and sacrifices. To win

the goodwill of the gods, the priests led the daily rituals in the temple and organised religious celebrations associated with events such as the Nile floods, ploughing and harvesting, and with dates that were significant for the gods.

PRIESTS COUNTED SACKS OF GRAIN

But the priests didn't just act as servants of the gods, they were also officials who ran Egypt's extensive bureaucracy and, on the pharaoh's behalf, took care of everything from building and maintaining the temples to collecting taxes, rationing food for the temple workers, embalming the dead, curing diseases, and acting as a police force.

"They kept a strict record of each hen, honey pot or sack of grain that was brought to the temple"

A large part of the priests' working day was spent on administration of the sacrificial offerings that poured into the temple. They kept a strict record of each hen, honey pot or sack of grain that was brought in. Detailed accounting lists have been found on papyrus scrolls.

Special so-called reading priests worked in the temple's centre of learning, known as the House of Life, which was arranged as a library and writing room. Here they wrote the forms of worship, as well as texts on mythology, magic, mathematics, medicine and astronomy, and the Book of the Dead, which wealthy people could buy to help deceased family members travel through the underworld to the afterlife.

These priests also claimed to be able to interpret dreams, saying, for example, that a man who'd seen his own mirror image in a dream would have another wife. Later (604-332 BC), there were even dormitories in the temple, where people could spend the night before the priests deciphered their

nocturnal experiences. The priests also explored the country's past. Some priests in the New Kingdom (1550-1069 BC) devoted themselves to archaeological work, excavating and restoring monuments from the Old Kingdom (2686-2160 BC).

EIGHTY THOUSAND TEMPLE WORKERS

In the largest temples, such as the Amun-Ra temple at the Karnak complex, the work was divided, so that the clergy exclusively worshipped the gods, while an army of scribes, artisans, sailors and farmers took care of the practical temple jobs. With the *nomarch* (a regional governor) at the helm, they kept the buildings in order, cultivated the land, hunted, and collected the huge amounts of gold, silver, copper, grain, clothes and poultry that the gods required.

A papyrus scroll from the time of the Ramesses III (1198-1166 BC) calculated the number of staff at the Temple of Karnak to be 81,322 people, with 125 different job titles. The temple's property stretched over 433 lush gardens and 239,299 acres of fields along the Nile. Its 83 boats sailed in the river, and 65 villages were dedicated to serving the sun god in Thebes.

Mighty temples, such as Karnak or the temples of Heliopolis and Memphis, served as a kind of independent state in the Egyptian kingdom. In complexes of this size, the priests particularly

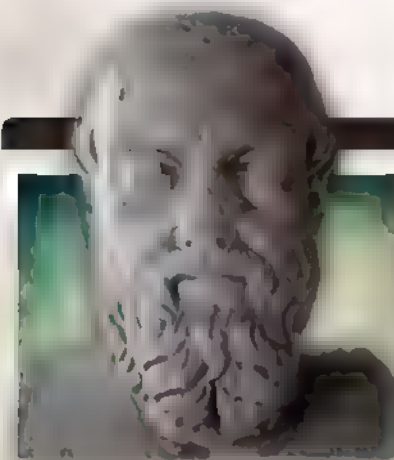
HERODOTUS 480-420 BC

THE FATHER OF HISTORY

One of historians' best sources of knowledge about the work and customs of Egyptian priests is the mammoth historical work written by the Greek Herodotus. Around 450 BC, he travelled through the Persian Empire, Mesopotamia and Egypt as an explorer, and described his experiences on the journey. The work revolves primarily around the Persian Wars and the enmity between the Greeks

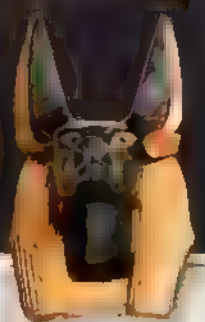
and the Persians, who at that time had taken control of Egypt. But between the war stories, Herodotus talks about the Egyptian world of gods and the priesthood. For example, he wrote detailed descriptions of the priests' hygiene rituals. Herodotus, known as the father of history, grew up in Halicarnassos, now part of Turkey, and died in the Greek colony of Thurii, in southern Italy.

Greek historian – Traveller – Author of the first text on ancient Egypt



PHARAOH WAS A LINK TO THE GODS

Egyptian society was divided into a strict hierarchy, where peasants and slaves had to work in the fields, while scholars and priests reaped the fruits of their labour, with the two groups coming together over the temples' sacrificial offerings. At the top of the tree, the pharaoh was the link to the realm of the gods.



GODS

■ Only the gods were above the pharaoh. According to Egyptian myths, the gods had created the whole world and maintained the order of the universe, known as *maat*.

PHARAOH

■ The mighty ruler of Egypt, the pharaoh was, in the Egyptians' worldview, the gods' representative on Earth. As the son of the god Horus or Amun-Ra, the pharaoh possessed divine power. He was in charge of the kingdom's government, but was also to be found on the battlefield during military campaigns.

VIZIERS AND HIGH PRIESTS

■ The worship of the gods in the most sacred temple chambers was led by the high priest or vizier, who was also the head of the temple administration. In some cases, the pharaoh appointed a high priest to control powerful clergy who might threaten his position.

PRIESTS AND OFFICIALS

■ Scholars and wealthy Egyptians could become officials in the extensive administration. Like the clergy, they collected taxes and kept careful records of sacrificial offerings to the gods. Priests and officials took some of the abundant offerings for themselves.

CRAFTSMEN AND FREE PEASANTS

■ Weapons, clothes, pottery, stoneware, jewellery, instruments and Egypt's colossal structures were all created by a skilled corps of artisans, who either had their own business or worked for the pharaoh and the temples.

SLAVES AND PEASANTS

■ At the bottom of the Egyptian hierarchy were slaves and peasants who worked in the fields. They served a lord or a temple that, in exchange for crops, gave them food and a place to sleep. Others ayes worked on the giant construction sites.

The creator and sun god Amun-Ra appeared in human form with a falcon's head. Here he holds the symbol of life, the ankh, in his left hand.



“Before the priest addressed the god, he cleaned his mouth by chewing natron [a salt]”



This mask, which depicts Anubis, the god of embalming, was worn by priests at ceremonies around 664-332 BC.

pharaoh himself. However, this tended to only happen when the pharaoh wanted to reward a particularly favoured subject or for strategic reasons, such as when he installed the high priest in Thebes to gain control of the clergy. The title of priest was so coveted that quarrels and power struggles often erupted between the candidates.

Historians have few sources that reveal how the new priests were ordained, but all the indications are that they went through a ritual. On one statue, an inscription describes how a young priest was presented to the gods of the temple during an initiation ceremony:

“I came from Nun [the primordial waters of Egyptian mythology] and I have rid myself of all that was evil in myself; I have set aside my clothing [and] I come before the god in the holy of holies, full of fear in his presence.” After the dedication, the initiates became *wah* priests and received training in the clergy’s tasks and knowledge, such as tribute verses and incantations. In time, they could advance to

become a *hem-netjer*, who could participate in the procession that carried offerings into the temple, for example. The post of high priest was often occupied by one of the pharaoh’s brothers.

In the Old Kingdom, there were also priestesses, in particular those of the goddess Hathor, who was depicted in the form of a cow. However, historians don’t know if the women led the rituals or simply joined the temple musicians.

Only at religious festivals were ordinary people allowed to see the gods’ statues at processions in the temple courtyard

SHAVED PRIESTS

The temples weren’t open to the general public – only priests could approach the statues of the gods. Entering the gods’ earthly abode required a very special etiquette, which priests had to follow to the letter.

The word *wah* means pure, because cleanliness was the supreme virtue of the temple. The priests had to bathe in cold water twice each day and each night usually in basins or a sacred lake near the temple. In hieroglyphs, the word for priest is written with three characters for the word water, as well as a jar from which water flows. The priests also had to shave all the hair from their bodies and head in order to be clean for the temple.

“The priests shave the entire body every other day so that no

➤ appreciated the offerings from outside, as they set aside a fixed proportion of the riches for themselves. During the New Kingdom, the clergy in Thebes seized so many goods that they had more wealth than the pharaoh himself. So, the ruler appointed a high priest, the vizier, to reduce the power of the wealthy priests.

TITLE OF PRIEST WAS INHERITED

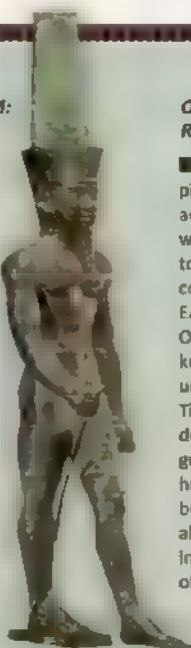
New priests were admitted to the clergy in various ways. Some inherited the title from their father. Egyptian texts tell of the role of priest being passed down through a family for 17 generations. In other cases, the temple priests chose new candidates. Some rich men bought their way into the lucrative post, while others were appointed by the

GODS WERE SHOWN AS APES AND FALCONS

The Egyptians often depicted their gods as animals that symbolised their characteristics. The gods could appear as several animals and also change names and roles.

RA/RE/AMUN/ATUM: CREATOR, SUN GOD

■ The most important god of the Egyptians went by many names. he was the creator god Atum/Amun and god of the life giving sun Ra/Re. The deity was often depicted as a majestic falcon, with a sun surrounded by a snake on its head, but could also take the form of a scarab, lion, bull, cat or human. Ra was the ancestor of all the creatures of the world.



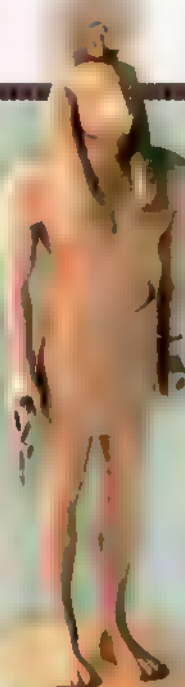
OSIRIS: RULER OF THE UNDERWORLD

■ Osiris was murdered and cut to pieces by his brother Set, and although the god’s wife Isis put him together again, he couldn’t return to Earth. Instead, Osiris became king of the underworld. The Egyptians depicted the god as a green human figure, but he could also appear in the form of a ram.



HORUS GOD KING

■ The falcon-headed god, Horus, was the son of Osiris and Isis. As an adult, he avenged his father’s death by expelling his uncle Set to the desert, and took the throne as king of Egypt. So, among other roles, he was the pharaoh’s protector. The Horus figure sometimes merges with Re/Ra/Amun/Atum.



impure flea or vermin shall impede them in the practice of their religion," explained the Greek historian Herodotus, who travelled to Egypt around 450 BC. The fine for not shaving was a staggering sum equal to the cost of 125 lambs, four slaves or a house. Every hair of their eyebrows and eyelashes even had to be removed.

Before the priest addressed the god, he cleaned his mouth by chewing natron, a natural salt that the Egyptians also used for embalming. Herodotus also noted that Egyptian priests were circumcised for the sake of purity. However, older Egyptian scriptures indicate that this tradition applied not only to priests but to all Egyptian men.

Sexual abstinence was another virtue to which priests had to adhere in the name of purity – at least in the days leading up to entering the temple. Scriptures also point out that having sex inside the temple was strictly forbidden. When the ceremonies in the holy halls were over, the priests could be with women just like any other Egyptians. They were allowed to marry and have children – according to some sources, however, only with a single wife, whereas others could have several wives. The high priest Psherenptah of Memphis is nevertheless known to have acquired an impressive harem, suggesting that the rules could either be bent or differed from region to region.

Only in the last days of the Egyptian kingdom, under Roman rule, does it seem that the priests began to live in celibacy.

DRESSED IN PANTHER SKIN

In addition to their shaved faces and heads, the priests were easily recognised by their special robes. They weren't allowed to wear wool or leather, because the fur and skin of animals could soil their clean bodies. The clothes were instead made of fine linen, and they often wore a white hat. Murals and reliefs show that the same style was kept for

TECHNOLOGY

Priests were Egypt's doctors

Curing tapeworms, healing snakebites or broken bones, and circumcision was all done by priests, who acted as doctors. From their embalming work, priests knew about the body's structure, but they also studied the

skeletons and organs of fallen warriors. Priests treated patients with medicine and bandages, but also resorted to magic rituals. For example, a cure could consist of water poured over a stone tablet inscribed with magical text.

ECONOMY

DAILY LIFE



millennia. Small details on the robe signified the priest's function and status. High-ranking priests, for example, wore a sash across their chests. Only specialised and high priests could dress completely differently. For instance, the *sem* priest (who presided over mortuary rituals) wore a panther skin, while the high priest from Heliopolis wore a robe adorned with stars.

In ancient Egypt, most people went barefoot, but priests usually wore sandals made of palm leaves or papyrus.

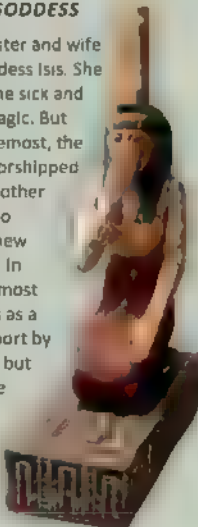
FRIED DOG SPARKED WAR

Even when it came to food, the priests had to follow a detailed set of rules. Ancient Greek and Roman scriptures tell of a strict diet that forbade all kinds of food. The diet varied in the different *nomes* – regions in the kingdom – and also changed over time.

Some priests had to avoid special cuts of meat, such as an animal's head or forelegs. Others had to abstain from certain types of meat, such as beef, pork, pigeons, pelicans or fish. Beans and garlic were banned for some priests, while others were only allowed to drink wine in small quantities. Even salt was frowned upon on the priests'.

ISIS: MOTHER GODDESS

■ Osiris's sister and wife was the goddess Isis. She could heal the sick and mastered magic. But first and foremost, the Egyptians worshipped her as the mother goddess, who gave life to new generations. In murals, she most often stands as a faithful support by Osiris's side, but could also be depicted as a kite, cow or hippo.



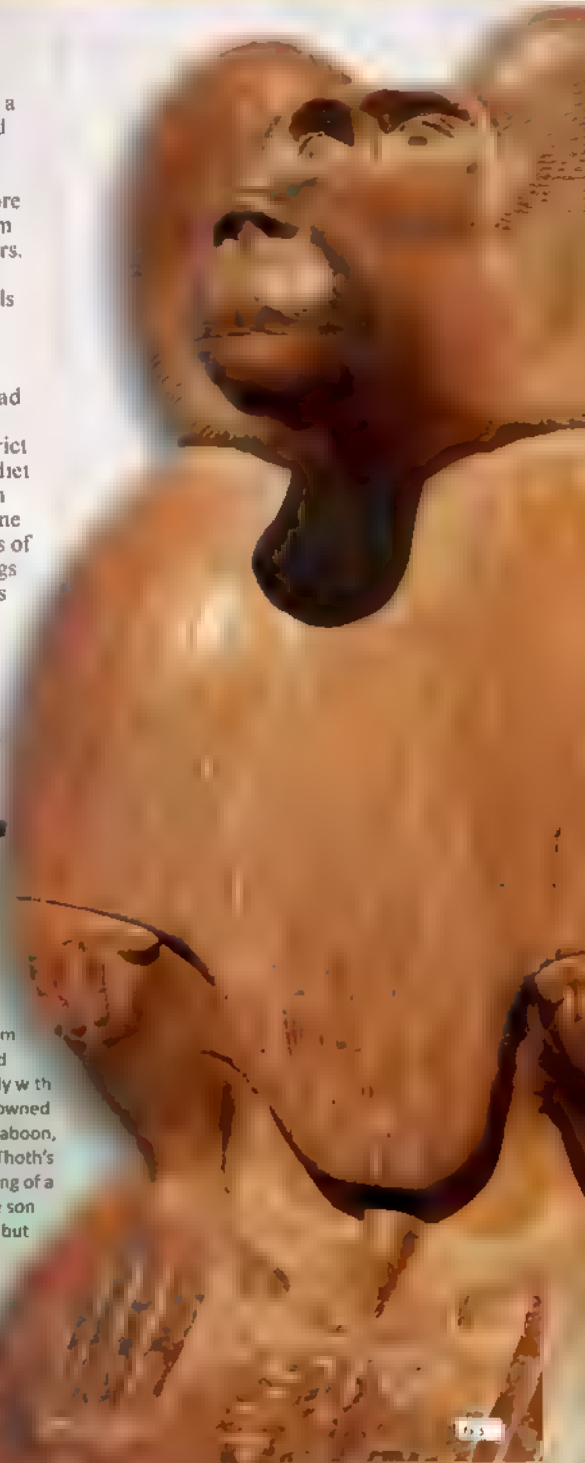
ANUBIS: GOD OF EMBALMING

■ Wild dogs and jackals roamed freely in the Egyptian tombs, so the god of embalming, Anubis, was associated with these animals. According to Egyptian mythology, Anubis weighed the hearts of the dead against a feather to determine if they could move on to the afterlife.



THOTH: MOON GOD

■ Writing, art and science were represented by the moon god Thoth, whom the Egyptians depicted either as a human body with the head of an ibis, crowned with a moon, or as a baboon, symbolising wisdom. Thoth's pedigree was something of a mishmash. He was the son of both Ra and Horus, but also of the desert god Set, who became pregnant after swallowing Horus's semen.



>>> table On top of the complicated dietary rules, priests regularly had to fast.

Differences in diets could even trigger conflict as occurred during the period of Roman rule in the neighbouring towns of Oxyrhynchus and Cynopolis.

For both the priests and the inhabitants of Oxyrhynchus, fish was sacred, whereas the priests and people of Cynopolis happily ate fish but abstained from eating dogs. However, when the inhabitants of Oxyrhynchus asked the neighbouring town to stop eating fish, their request was rejected. Therefore, to put pressure on Cynopolis, the people of Oxyrhynchus planned a banquet where the main course consisted of fried dog. News of the

feast triggered a war between the two cities, which continued until the Roman authorities separated the parties and punished the fighters.

SINGING WOKE THE GODS

Once the priests were prepared with their purification rituals and the correct diet, they could begin the work of the temple. In the Old Kingdom, five teams of priests worked shifts, one month at a time, while in the New Kingdom priests served full-time.

The daily routine started before sunrise, with a special morning ritual. At a signal

from an observer tasked with predicting the dawn by following the position of the stars, the temple courtyard filled with life. Some of the workers prepared the sacrificial meal, others prepared the god's clothes

and jewellery, while the priests themselves bathed in the sacred temple lake. Then they were ready to carry the sacrificial offerings in a procession to the deity, led by the high priest or other senior priests, who recited prayers. The officiant broke a clay seal that had barred the entrance to the innermost sanctuary of the temple overnight, and just as the sun appeared over the horizon, he began the morning ritual with a chant: "Rise thou, great god, in peace!" The priests answered, "Thou art risen, thou art in peace, rise thou beautifully in peace."

The high priest, as the pharaoh's deputy, then awakened the god to a new day by mentioning each of the deity's 45 body parts. For example, he recited: "Thine eyes cast flame! Thine eyes illuminate the night." And for each part of the body, the chorus of priests responded as one: "Thou art risen, thou art in peace ... thou spreadest o'er the earth thy powdered gold."

PRIESTS DRESSED STATUE

Some sources explain that the high priest woke the god by removing a cloth from the statue's head, before carrying the statue



A cow symbolised Hathor, goddess of love, among other things.



Priests paid tribute to the gods with processions, carrying statues of gods above them.

“The high priest anointed the face of the god with ten different oils and ointments”

into another room, the floor of which was spread with clean sand. Here, the high priest cleansed the statue's face of make-up and ointments, then washed the entire statue with water. The statue was then finely dressed in white and coloured linen, and adorned with a collar and a necklace, as well as feathers on its head. The high priest anointed the god's face with ten different oils and ointments before painting its eyes black and green.

Then it was mealtime. For the god. Bread, meat, fruit, honey and wine were carried before the statue, while reading priests recited the sacrificial rituals. In many temples, female musicians, *shemelt*, also entertained the god with songs and music from their rattle-like

instrument, the *sistrum*. The instrument was particularly associated with the cow goddess Hathor, but also used for other gods.

After the meal, the statue was carried back to its sanctum, which the priests

cleansed with incense before pouring more clean sand on the floor. Eventually, they walked away backwards, smoothing over their footprints in the sand behind them.

134 pillars adorned the Amun temple in Karnak, the most important temple in ancient Egypt.


The god's house was once again sealed with clay.

After the ceremony, the priests could only hope that their efforts would bear fruit and motivate the higher powers to maintain *maat*, the harmony of the universe ■

A high priest of the sun-god Amun was immortalised in stone







MILITARY SUPER POWER

3050-30 BC

From a bunch of bandit gangs armed with stone clubs, the Egyptian military evolved into a highly trained professional army.

Corps of infantry, foreign archers and skilled charioteers fought their way through neighbouring lands, seizing new territory and making the Egyptian empire the region's unrivalled superpower. The pharaohs took control of Nubia's gold mines and Syria's rich trade routes, but the threat from their borders remained.

3050-30 BC

31st century BC

The Narmer Palette depicts a king with a stone club.

1650 BC

Egyptians are inspired by Hyksos chariots.

1520 BC

Amenhotep I launches a campaign against Nubia.



1468 BC

Pharaoh Tuthmosis III occupies Megiddo.

7th century BC

The Assyrian Empire takes power in the Nile Valley.

30 BC

Roman forces invade Egypt and make it a province.

3050 > 1650 > 1520 > 1468 > 668 > 30 >

The attack began in the early morning hours. Horses trotted across the plain near the fortified city of Megiddo in Syria. Behind them, Egyptian chariots rumbled forth in a crescent formation. Pharaoh Tuthmosis III was enthroned on his gilded chariot at the head of 10,000 animated warriors. With shouted commands, he urged his soldiers to attack Megiddo's defenders were forced back and soon fled through the city gate, which they slammed behind them.

Pharaoh Tuthmosis III had his account of the Battle of Megiddo, which took place in 1468 BC, carved into the walls of the Temple of Karnak. This is how historians know that the well-organised Egyptian army sneaked unnoticed into Megiddo along a narrow pass, and how the warrior pharaoh proudly led his troops to victory. With the conquest of Megiddo, Tuthmosis III had not only captured Syria's rich trade routes, he had also made Egypt into one of the largest and most feared kingdoms in the Middle East.

The Egyptian warrior tradition dates back to the birth of the kingdom, but for many centuries, the country had no unified

army. Surrounded by barren desert on three sides and the Mediterranean on the fourth, the kingdom was protected by natural fortifications, and no real enemies threatened the Nile Valley.

When the Egyptians took up arms, it was to go raiding - south to the golden kingdom of Nubia, west to Libya or north to Syria to fetch cattle and slaves. At first, they didn't conquer those lands; they simply returned home with plunder before setting out again.

The pharaoh's sons were often appointed as commanders of the Egyptian army - even if they were still boys.

The warriors were most often local bandits or poor peasants who had no choice but to pillage in order to survive. Only on rare occasions were the fighters led by a pharaoh.

CLUBS AND CURVED BLADES

Egyptian texts and relics describe how the art of war evolved. The kingdom's oldest weapon appears on the Narmer

Palette - a ceremonial dish that has been called Egypt's birth certificate because it describes the union of Upper and Lower Egypt in the 31st century BC. On the platter, Pharaoh Narmer strikes down an enemy with a stone club. This simple weapon was constructed by fixing a large stone on to a short wooden handle. A single blow with such a club would kill an enemy.

In addition to stone clubs, slings and bows became popular during the kingdom's first 1,400 years. With these weapons, soldiers could wound their enemies from a safe distance before finishing them off with clubs or the dreaded khopesh sickle sword. The javelin was also an effective long-range weapon. A trained warrior could kill an enemy with a spear from 30 metres away. The Egyptians hadn't mastered the extraction and processing of iron at this



The Narmer Palette, aka Egypt's birth certificate, shows the pharaoh Narmer slaying a foe with one of Egypt's oldest weapons: a stone club.

time, so they made their weapons from stone or forged them from bronze, which isn't as strong as iron.

DEFEAT REVOLUTIONISED THE ARMY

Egypt's warriors met a sterner test when a Hyksos force appeared on their eastern border around 1650 BC. When the Hyksos attacked, fear spread through the Egyptian ranks, who were suddenly faced with a fearsome and, for them, unknown weapon. Two-wheeled chariots pulled by snorting horses rolled and slid across the plains while their crews fired a rain of arrows at the helpless Egyptians. The Hyksos warriors were in the minority, but thanks to their chariots, they subjugated the Egyptians and seized half their empire.

After more than a century of occupation, the Egyptians expelled the Hyksos and reunited the kingdom.

"When the sun shone forth on the land, I was upon him like a falcon," read a report from Kamose, the Egyptian military leader who defeated the Hyksos king, Apepi. Adding that by midday, "I defeated him, I destroyed his wall, I killed his people. My soldiers were like lions upon their prey, carrying off slaves, cattle, fat, and honey, and dividing their possessions."

During the Hyksos occupation, the ancient Egyptians learned from their

Soldiers cut off the hands of killed enemies. These were counted by scribes, and soldiers received rewards depending on the number they'd severed.

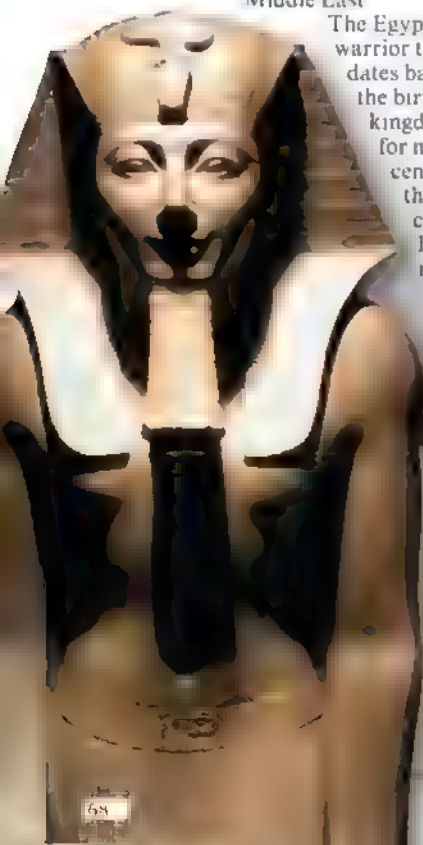
TUTHMOSIS III, REIGNED 1479-1425 BC

EGYPT'S MOST MIGHTY MILITARY RULER

■ Although Tuthmosis III was heir to the throne, he had to share power with his stepmother, Queen Hatshepsut, for the first 22 years of his reign. While the queen handled the kingdom's internal affairs, Tuthmosis III took care of foreign policy, which seemed to involve expanding the kingdom's territory as much as possible. Tuthmosis III was so successful that historians have dubbed him the "Napoleon of ancient

Egypt". In the north, he conquered Syria's busy trade routes and main trading centres, such as the coveted cities of Megiddo and Kadesh. To the south, he reached the Nile's Fourth Cataract in Nubia. The Egyptian empire reached its zenith in terms of territory under Tuthmosis III. Like the other great rulers of the New Kingdom, Tuthmosis III was buried in a magnificent tomb in the Valley of the Kings.

Occupied the cities of Megiddo and Kadesh - Conducted 16 campaigns - Made Egypt bigger than ever





PHARAOHS CONSCRIPTED FOREIGN SOLDIERS

When the Egyptians conquered new land, they did not just plunder it for gold, food, cattle and other riches. The soldiers also captured foreign soldiers and forced them to fight in the pharaoh's army. The foreigners further strengthened the Egyptian forces.

NUBIAN ARCHER

The athletic Nubians were famed for their skill with a bow. The archers fought in their traditional attire.



MEDITERRANEAN RAIDERS

The Sea Peoples who raided along the Nile were known as expert swordsmen.



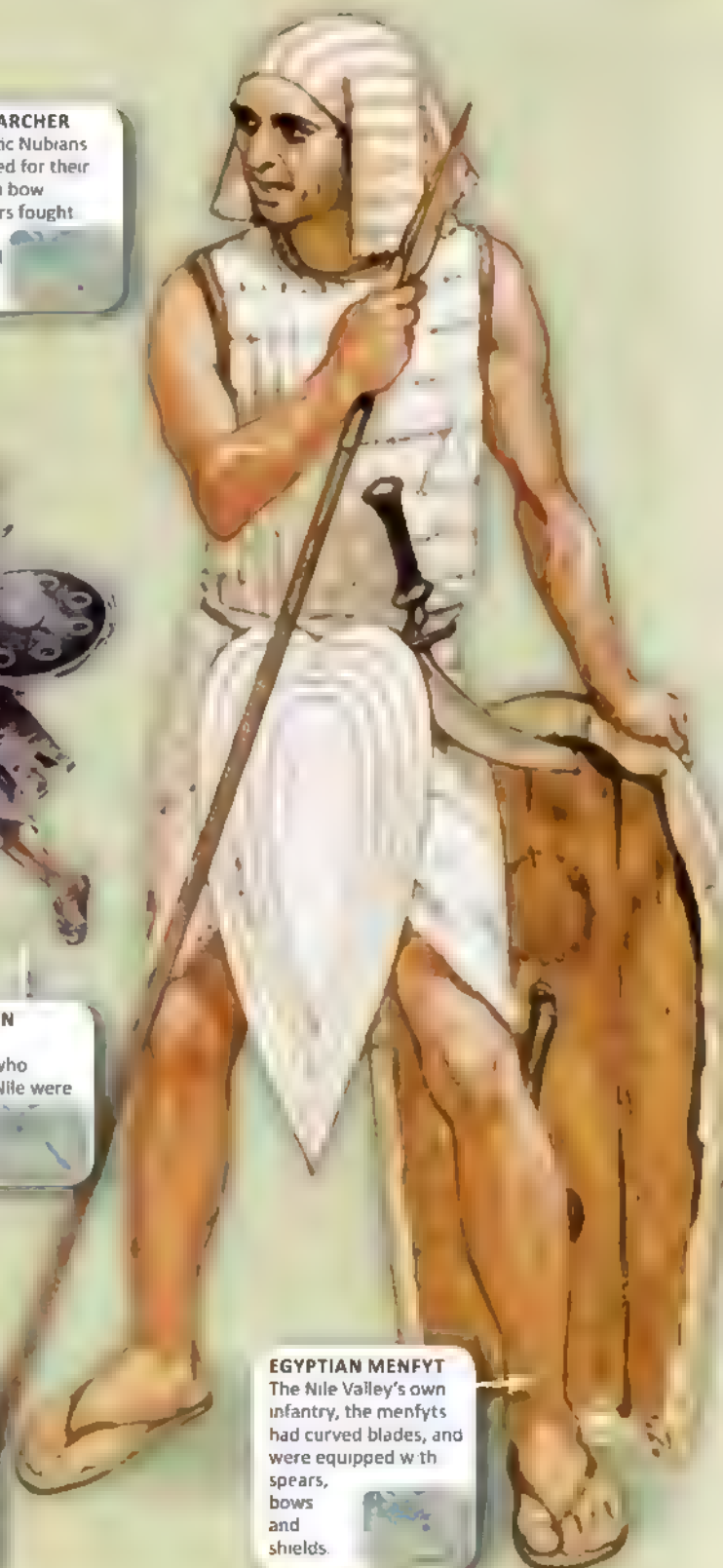
LIBYAN ARCHER

Like the Nubians, the Libyans were skilled archers. A giraffe skin protected the Libyans' backs during battle.



EGYPTIAN MENFYT

The Nile Valley's own infantry, the menfyt, had curved blades, and were equipped with spears, bows and shields.



“LIKE A PANTHER, HIS MAJESTY THREW HIS FIRST LANCE,”

The Nile Valley's
artisans forged bronze
axes like this one

>>> enemies. Craftsmen along the Nile copied their chariots, and they later became a regular part of Egypt's military apparatus. As time went on, the Egyptians even refined the vehicles so that they became easier and faster to manoeuvre. However, the chariot was an expensive weapon to produce and maintain. Only the richest and most powerful rulers could afford to build a chariot unit, because in addition to the carriages, a large herd of military horses had to be fed, trained and cared for.

However, the pharaohs of the Eighteenth Dynasty, who came to power after the Hyksos, were ready to pay the price.

NAVY CARRIED THE ARMY

After the victory over the Hyksos, the rulers of Egypt organised the army into a tight hierarchy. They divided the fighters into disciplined corps and divisions, each led by its own commander. At the top was the pharaoh himself.

Pharaoh Amenhotep I was in charge when the Egyptian army marched on Nubia around 1525 BC. The aim was to conquer their neighbour's mines, with their seemingly inexhaustible supply of gold, and to secure the kingdom's borders to the south. However, the campaign was far from easy, with the navy having to ship crews and weapons 550 kilometres up the Nile, against the current.

Egypt at that time already had a long naval tradition. Archaeologists have dusted off reports of naval attacks on neighbouring lands as far back as 2300 BC. But the flat-bottomed Nile boats met a fierce challenge near the city of Aswan on Egypt's southern border. Rapids, known as Cataracts, whipped up six long stretches of river that constantly threatened to smash the Egyptians' ships against rocks poking out of the shallow waters. The river in the Batn-El-Hajar region was especially bad.

Pharaoh Amenhotep I, however, had a plan. He tied ropes to both sides of his ships, which were held by his warriors on either bank. That way, the boats could be steered around the most dangerous rock formations. As the daytime temperature

reached 48 degrees, Amenhotep ordered his troops to work by moonlight or in the early dawn. Amenhotep's method was so effective that British general Garnet Wolseley copied it in 1884, when he led his troops up the Nile to liberate a garrison in Khartoum in present-day Sudan.

HANDS WERE TROPHIES

After battling torrential rains and defeating small local tribes, the Egyptians reached the sacred mountain Jebel Barkal. Here, for the first time, they overcame the Nubians in a major battle. As the Egyptians slashed their way through their enemies, they put the defeated archers in chains. The bowmen, who were highly skilled, would now serve in the Egyptian army. The rest of the Nubians were killed before having their hands cut off.

"I was at the head of our army; I fought incredibly; his majesty saw my bravery. I took two hands and brought them to his majesty," boasted one of the expedition's army commanders, Ahmose.

The custom of chopping off the hands – or in some cases the noses or penises – of defeated foes was an Egyptian tradition. After the battle, the warriors held a ceremony in their camp, where the severed appendages were counted by scribes so that the army commanders could log the number of enemies killed and reward individual warriors for their achievements. Army commander Ahmose was not disappointed:

As writing on the wall of his tomb testifies, "His

An image of the warrior pharaoh Tuthmosis III is carved into the walls at the Temple of Karnak.

majesty presented me with gold. Then I brought away two female slaves in addition to those that I had taken to his majesty, who appointed me, 'Warrior of the King'."

Pharaoh Tuthmosis I, successor of Amenhotep I, crowned the work by leading his troops all the way to Kurgus at the Fourth Cataract in the Nubian Dar al-Manasir Desert. As a result, most of Nubia was under Egyptian control.

"Like a panther, his majesty threw his first lance which remained in the body of the fallen one ... their people were brought off as living prisoners," reads one contemporary account of the campaign. To mark the new territory, Tuthmosis I built a fort and erected a victory stele, which threatened that anyone who opposed him would be beheaded and his family would suffer the same fate. Upon returning to Egypt, the pharaoh marked the victory by hanging one of the captured tribal leaders, upside down, from the royal ship.

The Egyptians got what they had come for: the Nubian gold mines, which they marked on maps with mountains as landmarks. The gold made the rulers of the New Kingdom (550-1069 BC) richer than ever. Now they could afford more soldiers, better weapons and more sophisticated workmanship. This is evidenced by the

12,535

was the number of enemies that Ramesses III claimed to have killed with a single blow.



CHARIOTS: Manned by a rider and an archer, and with two galloping horses in front, the chariots stormed across the battlefield. The chariots were often flanked by running warriors who protected the chariot team and hijacked enemy chariots where possible.



ARCHERS: Armed with composite bows that were highly effective at distance, the archers fired arrows that were primarily intended to wound rather than kill the enemy.

>> gilded grave goods found in the lavish tombs of pharaohs such as Tutankhamun.

THEY USED COMPOSITE BOWS

In addition to the Nubian gold, the victory secured archers that were formed into a new corps. The tall, athletic Nubians were unsurpassed with their long composite bows. Characterised by their special construction, these bows had been used in the Old Kingdom (2686-2160 BC), but became more refined and widespread after the Hyksos invasion. The Egyptians made their bows from hard, flexible materials such as horn, bone and hardwood, which were glued together in layers. This made the bow resilient. The arrows, of wood or reed, were tipped with flint, horn, wood, bone or copper arrow heads. The bowstring was made from twisted animal tendons or guts.

Pharaoh Amenhotep II, who reigned from 1427-1400 BC, was keenly interested in

military matters. A stele at Giza described him studying the construction of his bows.

"He drew 300 strong bows, comparing the workmanship of the men who had crafted them, so as to tell the unskilled from the skilled."

As Egypt's territory grew, the Egyptian army commanders incorporated more and more warriors from the conquered territories into their army, including Libyans, Canaanites and Sea Peoples. The latter were pirates from the Mediterranean area who had been captured while plundering the Nile Delta. They were famed for their abilities with a sword. The foreign warriors were called mercenaries, but most were basically prisoners of war who preferred to fight in the pharaoh's army rather than become slaves.

To ensure the loyalty of the new soldiers, the Egyptians forced them to conform to the customs and culture of the

country. From various steles we know that they had to learn the language, and were forcibly circumcised at least during the Old and Middle Kingdom eras. As a reward for their service, they were promised fertile plots of land in the Nile Valley.

TROOPS WERE FLOGGED IN TRAINING

For an Egyptian in the New Kingdom, a military career could be the path to prestige and status not least if the warrior became a charioteer. Here they could mingle with the sons of the elite, who typically served in chariot units.

The soldiers were usually recruited at a very young age. Often, boys in families with a military tradition were part of their father's unit. The young warriors were accommodated in barracks, where they pulled on a uniform of a simple loincloth and a feather to put in their hair. Under the setting sun, they underwent strenuous training with long marches, wrestling and strength training. In addition to the physical program, their superiors instilled military discipline. Violations were punished with flogging, and the recruits were even ordered to whip each other.

The pharaoh, whose title as commander-in-chief was more than just honorary, sometimes trained his elite troops in the noble art of war. One of the most zealous was Akhenaten, who ruled 1352-1336 BC.

"He trains thousands of recruits, being the chief of eternity like the Aten [young sun god]," a tomb in Amarna says.

According to the ancient texts, the pharaohs also trained war horses, which the Hyksos had originally brought to Egypt. A stele near Giza records how, as a

TECHNOLOGY

CULTURE

ECONOMY

DAILY LIFE

Slings created panic

Slings were originally used by shepherds to keep predators away from their flocks. The weapon consisted of a square piece of leather or fabric woven from plant fibres, with two cords attached. The slinger placed a stone on the

leather and swung the sling above his head until it had sufficient speed, then he released one of the cords, causing the sling to open and the stone to be hurled forward. It took skill to hit a target, but even poor shots panicked the enemy





NAVY: The Egyptian fleet can be traced all the way back to the kingdom's earliest years. The main function of the vessels was to transport troops along the Nile or across the Mediterranean. River boats were constructed of reeds, while sea vessels were built of wood from Syria and the Levant.



INFANTRY: Foot soldiers were used for close combat with swords, axes, spears and clubs. They advanced after the archers had softened up their targets.

prince, Amenhotep II helped train horses that "never grew tired when he took the reins nor did they even sweat on a long gallop. He used to yoke them in the harness at Memphis and stop at the sanctuary of Harmachis [the sphinx]"

PHARAOH'S CHILDREN COMMANDED

The riches that Egypt's warriors retrieved in the conquered territories meant that the pharaohs could afford to develop an even larger and more well-organised army. In the New Kingdom, the army was divided into three or four large corps, each with 4,000-5,000 men and 500-1,000 chariots. The corps were subdivided into smaller divisions of 250 or 500 warriors, which were then split into units of up to ten men. The pharaoh or a member of his immediate family had overall command, and even as children, the pharaoh's sons could be appointed as commanders-in-chief of the entire war machine.

Tuthmosis III was one of the most famous and successful pharaohs when it came to waging war. During his reign 1479-1425 BC, he led as many as 16 campaigns, 14 of them in Canaan and Syria, where he occupied the cities of Megiddo and Kadesh. His armies crossed the Euphrates River and defeated the Mitanni people, who controlled many of the coveted trading centres in Syria before the Hittites seized power in the area. Pharaoh Tuthmosis III made Egypt bigger than ever. After his 16 campaigns, the

empire stretched all the way from Nubia in the south to the city of Carchemish in the north, on the border between present-day Syria and Turkey.

Many times, however, the Egyptians didn't even have to take to the battlefield to defeat their rivals. Instead, they pulled strings through their extensive diplomatic network and had soldiers from vassal states protect their interests.

DEFEATED BY ASSYRIA

Although the Egyptians were occasionally driven back and lost territories, the pharaohs retained power over large parts of the Middle East for centuries, but they couldn't withstand the military power of Assyria, which conquered the kingdom in the 7th century BC. The Assyrians stormed through the Nile Valley with 100,000 men—four times as many as in the Egyptian army.

The Assyrian forces, however, were nothing compared to the Persian army, which could muster half a million warriors and which invaded Egypt in 525 BC. Two centuries later, thanks to their superior military tactics, the Greeks gained power over the Egyptian empire. They advanced in several ranks, armed with spears and

protected by shields, and systematically slaughtered their enemies.


However, the decisive defeat that finally put an end to Egypt's halcyon days came when Rome's professional war machine arrived. This time, the pharaoh and his legions had to surrender once and for all. The era of warrior pharaohs and the powerful Egyptian military was over; now they marched only on the walls of ancient temples and across dusty victory steles. ■

"Violations [of discipline] were punished with flogging, and the recruits were even ordered to whip each other"

Gold from Nubia was turned into luxury grave goods. This is from Tutankhamun's tomb.







RAMESES THE GREAT

1303-1213 BC

At the rocky outcrop of Abu Simbel near Egypt's southernmost border, four huge statues tower in memory of Egypt's greatest pharaoh. For almost 67 years, Ramesses II – today known as Ramesses the Great – ruled his vast empire, steering it safely through its last great period of prosperity. He spent his days keeping his enemies in check, travelling around the kingdom overseeing the many construction projects that would bear eternal witness to his greatness, and in the company of his many wives, with whom he had more than one hundred children.

1303-1213 BC

c. 1303 BC

Ramesses II is born. He is the son of Seti I.

1279 BC

Ramesses succeeds his father to the throne.

1274 BC

The Battle of Kadesh has the advance of the Hittites

1258 BC

Ramesses agrees to peace with the Hittites after many years of strife

c. 1245 BC

The rock temples at Abu Simbel are complete.

1213 BC

Ramesses dies after ruling for c. 67 years.

303 > 1279 > 1274 > 1258 > 1245 > 1213

It was early morning when Pharaoh Ramesses stepped out of the royal tent beside the Orontes River, south of the town of Kadesh. Around the red-haired ruler, the camp was already buzzing with energy. Soldiers prepared their weapons and saddled their horses. Others packed the tents and loaded them on to ox-carts. The 30-year-old Ramesses felt well rested. It had been a good month since he'd left Egypt with his troops, and now they were finally close to their destination: Kadesh. The city stood in the Amurru region (in today's Syria) and Ramesses was determined to take it from his old rivals, the Hittites, and their king, Muwatalli. It was 15 years since Ramesses had stood on the same riverbank with his father, Seti I. Back then, father and son had captured Kadesh from the Hittites and left the fortified city as victors. But once the Egyptian troops had withdrawn, the Hittites had retaken Kadesh. Now Seti I was dead and Ramesses was the sole ruler of the empire, and he had no intention of letting the Hittites keep their prize. The disputed city must be his once more.

EGYPT'S POWER HAD DIMINISHED

When Ramesses II ascended the throne in 1279 BC, he became ruler of a land that had seen better times. His father had already been on several campaigns in Syria and Palestine in an attempt to restore the

pre-eminence Egypt had previously enjoyed during the reign of the warrior pharaoh Tuthmosis III (1479-1425 BC) almost 200 years before. During his 17 years on the throne in the middle of the 14th century BC, Pharaoh Akhenaten, in particular, had watched passively, while the power of the Hittites increased in the north-east. Egypt's vassal states and their tax payments slipped from the kingdom one by one, and the series of weak pharaohs that followed Akhenaten was unable to reverse the trend.

But now Ramesses was pharaoh and it was time to write a new chapter in Egyptian history. The road to fame and power in ancient Egypt went largely through Syria and especially Kadesh. The coveted city was both a military and commercial key point. If you controlled Kadesh, you could oversee the traffic in the Beqaa Valley, the natural route for any army heading north. Important trade routes also ran through Syria and out to port cities on the Mediterranean, while other roads connected Syria with Asia Minor in the north and Egypt in the south. For the Egyptians, it was also crucial to hold Syria



Ramesses the Great happily embraced his image as an imperial ruler. Here, Nubian, Libyan and Syrian prisoners feel the pharaoh's firm hand

and Palestine as buffers for enemies attacking from the north who could otherwise easily invade the low-lying Nile Delta. In short, if you controlled Kadesh at that time, you had economic and military supremacy in the Middle East.

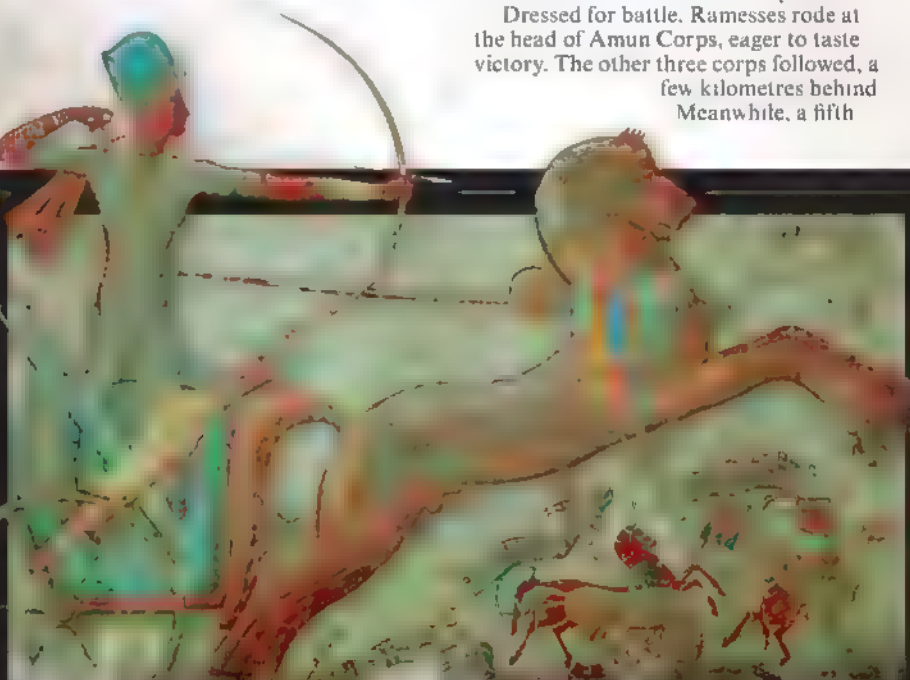
RAMESSES RODE TOWARDS KADESH

Back at the royal camp, Ramesses regarded his soldiers with satisfaction. He was sure that the gods were on his side. With him were four corps, each with 5,000 men, named after the four Egyptian gods Amun, Ra, Ptah and Set. Ramesses's personal retinue included his firstborn son, the crown prince and commander of the troops Amun-her-khepeshef, as well as his faithful vizier, Paser, his shield bearer, Mennu, a set of courtiers and, of course, his pet lion.

Dressed for battle, Ramesses rode at the head of Amun Corps, eager to taste victory. The other three corps followed, a few kilometres behind. Meanwhile, a fifth

RAMESSES MASTERED MANY ROLES

To be successful, a pharaoh in Ramesses's time had to be able to play a number of roles. Domestically, he had to be strong enough to force through his policies in the face of powerful priests and officials who also expected him to act as a divine saviour – at least in the eyes of his subjects. In foreign affairs, a pharaoh was expected to be ruthless and determined in war, but with the political acumen to secure the backing of vassal kings and other allies. This was especially true in the troubled New Kingdom, a period marked by battles over territories and lucrative trade routes.



WARRIOR: Ramesses the Great waged several wars during his reign and was a master of military propaganda. He greatly embellished his military exploits – not least the Battle of Kadesh against the Hittites – and made sure his people heard about his unsurpassed abilities as a commander and soldier.

“Rameses had been intelligent and ambitious from an early age”

unit, split from Amun Corps and made up of Egypt's elite forces, headed north towards the coastal regions.

MOTHER RULES AT HOME

Rameses had been intelligent and ambitious from an early age, and had accompanied his father on campaign with great interest. By the time Rameses II turned 16, Seti I was confident enough to promote his son to co-regent. As a result, Rameses was given his own royal residence and court, along with two wives that his father selected for him.

Rameses came from a family that can be called neo-royal. Rameses's grandfather, Rameses I, had been the trusted vizier and military commander for the Eighteenth Dynasty's last king, Horemheb, who died in 1295 BC without leaving an heir. Horemheb therefore appointed Rameses's grandfather as his successor. Rameses I, however, only reigned as Pharaoh for a year before he died, leaving the throne to his son, Seti I.

When Seti died in 1279 BC, it was Rameses II's turn to be sole ruler. As only the third pharaoh in the Nineteenth Dynasty, he was eager to show his people that he was the rightful heir to the throne, the gods had chosen him, and for good reason. Later in his reign, he was, as tradition dictated, transformed into a full

god during the Heb-Sed feast - a ceremony held on a pharaoh's thirtieth jubilee and every three years after that. The Heb-Sed reinforced a pharaoh's role as the leader and saviour of his people. But Rameses had wanted to prove that he had divine

At his

coronation
Rameses took several titles, one was "Mighty Bull beloved of Maat" (the goddess of truth and justice).

blood right from his birth. Admittedly, Rameses's father had already been exalted to godhood, as was the tradition with deceased pharaohs, but Rameses's mother, Queen Tuya, was not yet a mummy in the Valley of the Queens. On the contrary, she was very much alive and therefore not yet sufficiently divine.

Rameses therefore began calling his mother Mut-Tuya. This was a cunning move. Mut means mother in the ancient Egyptian language, but it was also a reference to Mut, the goddess of creation. With this clever form of address, Rameses was slyly reinforcing his own status as a god.

Goddess or not, Mut-Tuya was a special woman in Rameses's life. She had aristocratic ancestry, came from a military family and had proven many times that she was both a wise and strong woman. When Rameses became sole ruler, he could



DIPLOMAT: When Rameses realised that he couldn't defeat the Hittites in battle, he negotiated the world's first peace treaty with the eastern kingdom.

DIVINE: Rameses worked hard to maintain his god-like image in the eyes of his subjects. Here, he's shown as a baby at the feet of the god Horus.

>> therefore rely on his mother's knowledge of state affairs and sound advice. In fact, she became his unofficial co-regent, deputising when he was away on campaign or overseeing his many construction projects.

The other important woman in Ramesses's life was Nefertari – his beautiful wife, who had given him his first son. However, he was far from being the only child Ramesses sired. Nefertari bore him at least six children – four sons and two daughters – and inspired Ramesses to write the following verse: "My love is unique – no one can rival her, for she is the most beautiful woman alive."

On the sidelines, stood his second wife, Isetnofret, who nevertheless ended up taking on an important role. It was her son, Merenptah, who eventually took the throne when Ramesses was entombed in the Valley of the Kings at the end of his long reign. By then, Ramesses's firstborn son was dead and the same was true for his next 11 offspring. Ramesses had so many children that today they could have formed over half a dozen football teams, but who at the time were destined to take on the country's most important religious and military roles.

Nefertari and Isetnofret weren't alone in giving birth to the mighty pharaoh's sons and daughters. Ramesses had at least eight

“Ramesses was hugely proud of his virility and boasted of it in carvings”

wives plus a harem of concubines. Together, the pharaoh's women gave him at least one hundred children. Ramesses was immensely proud of his virility and boasted of it in carvings on temple walls, which named many of his offspring.

Some historians believe that two of Ramesses's daughters were married to their father after their mothers, his principle wives, had died. Nefertari's eldest daughter, Meritamen, and Isetnofret's eldest daughter, Bintanath, are both believed to have taken over their mothers' roles.

RAMESSES FELL INTO A TRAP

It's possible that campaigns, like the one against the Hittites at Kadesh, were a welcome distraction for Ramesses, allowing him to focus on military tactics rather than what was undoubtedly a complex domestic life. But the chaos that accompanied the start of the Battle of Kadesh, may well have made him wish he was back home.

The Hittite king, Muwatalli, successfully fed false intelligence to the Egyptians, and as a result, one of Ramesses's four corps fell into a trap. Furious, Ramesses made camp and called together his war council, but it was too late. The sound of Hittite chariots was already echoing across the tents, and the surprised Egyptian soldiers panicked. The Hittite chariots spewed up dust around the camp as the Egyptian soldiers tried to find cover. Arrows pierced the air around them and swords hammered against their raised shields.

According to Egyptian sources, the Hittite army consisted of 2,500 chariots and up to 40,000 infantry, including veteran Sea

Peoples that Muwatalli had hired as mercenaries. However, the actual number of chariots was probably nearer 500 – still a frightening force for the encamped soldiers.

In the midst of the chaos, Ramesses god's chosen one – watched as his soldiers fled before the Hittites' superior forces. It was then, according to hieroglyphs that Ramesses later had carved into his buildings, that the great pharaoh showed his divine courage and supernatural strength. He summoned the god Amun and ordered his shield bearer, Mennu, to steer the chariot against the enemy. With a mighty roar, Ramesses began slaying the Hittites around him.

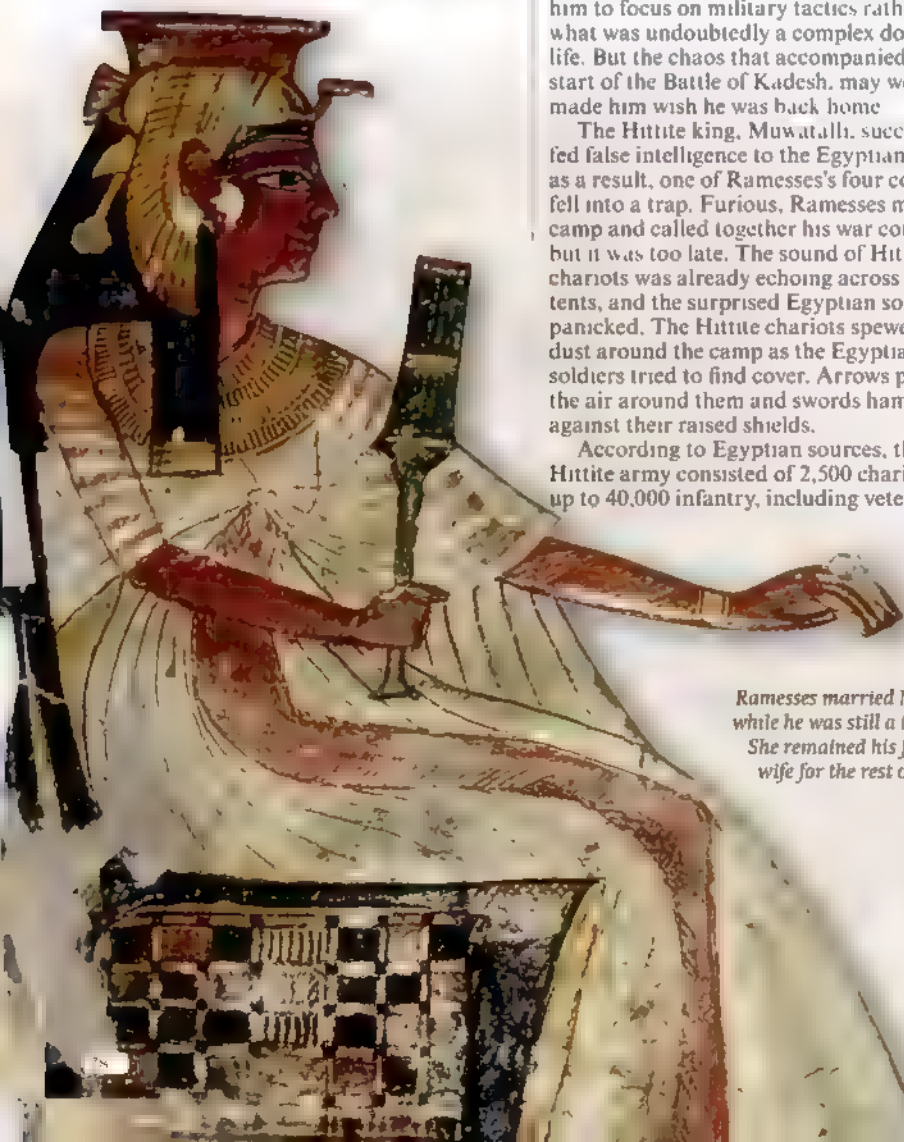
With the help of his elite forces, who arrived on the battlefield shortly afterwards from the coast, Ramesses succeeded in driving back the Hittites. But his defeat wasn't clear cut: Muwatalli survived to fall back on Kadesh.

It was far from the decisive final victory that Ramesses had hoped for. Amurru was in Hittite hands, and Kadesh was still unconquered. Yet it was a triumphant army that returned home to Egypt a month later with prisoners of war and war booty in tow. Ramesses was celebrated as the great hero who had single-handedly routed the Hittites. The fact that Kadesh was still controlled by the Hittites wasn't mentioned.

PHARAOH PAID HOMAGE TO HIMSELF

After the Battle of Kadesh, Ramesses embarked on a major propaganda exercise. On all of Egypt's great monuments and temples, artists painstakingly carved verses into the walls telling of Ramesses's unsurpassed heroism during the battle. The pharaoh even made sure that the hieroglyphs were carved extra deep, so that future pharaohs couldn't edit the story for their own purposes. Ramesses knew how history could be reshaped. He'd had a number of temples partially demolished during his time so that the materials could be used for his own projects. And where that wasn't an option, Ramesses rebuilt the temples and had them rededicated to him. The pharaoh strived to build a temple to Ramesses in every city, so the locals could worship their esteemed ruler.

However, it was precisely this – his ambitious construction programme – that was Ramesses's greatest achievement. He wanted to create something that would stand for hundreds, even thousands, of years after his death. No other pharaoh made such a lasting impression on the



Ramesses married Nefertari while he was still a teenager. She remained his favourite wife for the rest of his life

NEW BUILDINGS WERE ERECTED EVERYWHERE

The reason that Ramesses II is regarded as one of Egypt's greatest pharaohs is largely down to his tenacity as a builder. Across the kingdom, he had a multitude of monuments erected in his honour – including an entire city.

MEMORIAL TEMPLE

- **What:** Ramesseum
- **Where:** Thebes, in the southern Nile Valley
- Ramesses II was one of Egypt's greatest pharaohs – the greatest, he believed. Therefore, he decided that he should have nothing less than Egypt's most impressive memorial temple. The Ramesseum – or the "House of millions of years", as it was known at the time – was built to enable his descendants to honour him and the sun god Amun for all eternity. The monument was famous for the 17-metre-high statue of a seated Ramesses, of which only fragments remain today. The Ramesseum was built in the former capital Thebes and took about 20 years to complete.



The Ramesseum memorial temple is decorated with scenes from the pharaoh's wars against Syria and the Hittites

CAPITAL CITY



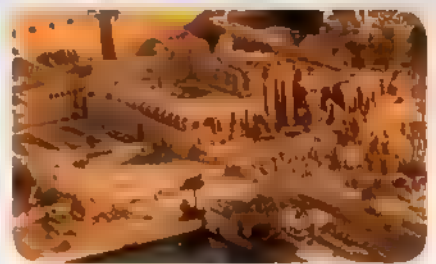
Parts of Ramesses's capital city – pillars, statues and building blocks – are now located in the ruins of Tanis, where they were moved c. 1000 BC.

- **What:** Pi-Ramesses
- **Where:** The eastern Nile Delta
- Ramesses not only erected monuments – he also founded a new capital city. The former capital, Thebes, was scrapped in favour of a northern city, the site of his father's summer

palace. Ramesses called the city Pi-Ramesses (House of Ramesses). It was known for its beautiful gardens and lush surroundings, which provided its 300,000 inhabitants with food and pleasure. Some historians believe that Pi-Ramesses may have been the Egyptian city of Ramesses described in the Bible, the place from where Moses led his people out of Egypt. During the Twenty-First Dynasty, around the year 1000 BC, the capital was moved again, this time to Tanis city. Many of Pi-Ramesses's monuments were relocated there in the move.

GREAT HYPOSTYLE HALL IN THE KARNAK TEMPLE COMPLEX

- **What:** The Karnak Temple Complex
- **Where:** Karnak, near Thebes
- Ramesses also added to previous pharaohs' construction projects. The Karnak Temple Complex is a fine example of this. Ramesses completed the Great Hypostyle Hall in the most famous of the temples – the great Amun-Re temple. The hall consists of 134 columns, measuring just over 24 metres each, and covering an area of 5,000 square metres. Ramesses also ordered a large part of the decoration, which ensured that his heroic exploits could be carved into the temples walls to be remembered for all time.



Thirty pharaohs had a hand in building the Karnak Temple Complex. Ramesses was one of those who built the most there.

THE COLOSSUS OF THE GREAT TEMPLE AT ABU SIMBEL

- **What:** The temples at Abu Simbel
- **Where:** Banks of the Nile, far south of Egypt
- At Abu Simbel, near Egypt's border with Nubia, Ramesses had two temples cut from the sandstone rock. The smaller he dedicated to the goddess Hathor and his beloved queen Nefertari, while the larger was dedicated to himself and the sun god Amun. The great temple, with its famed inner chamber and four 20-metre-high statues of Ramesses, has impressed those sailing on the Nile for millennia. It is built in such a way that twice a year – around 22nd February and 22nd October – the first rays of dawn shine directly into the temple's sanctuary. During the construction of the Aswan Dam in 1964–68, the temples were sawn into 1,042 pieces, and relocated 60 metres upstream and 210 metres inland to avoid being flooded.

Ramesses had four 20-metre-high statues of himself built by the Nile. At their feet sit the pharaoh's wife, children and mother



TECHNOLOGY

CULTURE

ECONOMY

DAILY LIFE



Pharaoh kept Jews as slaves

Ramesses II used a lot of foreign labour for construction and mining, including Israelites. Often these were prisoners of war or slaves who endured hard conditions and were no doubt eager to escape Egypt. For this reason,

some historians believe that Ramesses was the pharaoh who, according to the Bible, refused to allow the Israelites to leave his kingdom. This theory is backed up by the mention of a city called Ramesses in the Book of Exodus.

>> Egyptian landscape. Ramesses's projects were the only ones on a par with the pyramids built a thousand years earlier

His architectural legacy was the greater part of Ramesses's life work. He wanted to immortalise himself by evoking an image of the most powerful and greatest pharaoh that had ever lived. We can still see parts of his most important temples and monuments today. These include his memorial hall, the Ramesseum, the temples at Abu Simbel, and parts of the huge complex at Karnak.

Ramesses, however, wasn't satisfied with individual monuments – no matter how gigantic they were; he wanted to found his own city. And so, the kingdom's capital was moved from Thebes to the new town of

Pi-Ramesses (House of Ramesses), which lay further north and had previously been the site of Seti I's summer palace. Pi-Ramesses was a magnificent city with

beautiful gardens encircling a huge royal palace. The city was built around small lakes and canals, leading some of today's archaeologists to refer to it as the Venice of Egypt.

There were two key reasons why Ramesses chose to move his headquarters. First, he was born and raised in the delta

region of northern Egypt, and second, Pi-Ramesses was closer to the border with the hostile Hittites. The capital's new location made it easier for Ramesses to learn of and respond to any unrest in the oft-contested territory

WORLD'S FIRST PEACE TREATY

However, by the twenty-first year of Ramesses's reign, 16 years after the Battle

of Kadesh, Egypt's ruler was tiring of the drain caused by the dispute in the north. Despite numerous military campaigns, there was still no end in sight to the conflict with the Hittites, and there was still no decisive victor. Ramesses captured Kadesh time and again, but as soon as his troops moved back into Egypt, the Hittites surged forward and recaptured the city once more.

However, relations between Egypt and the Hittite kingdom suddenly took an unexpected turn when the Hittites' new king, Hattusili III, offered to make peace with Ramesses.

Since the Battle of Kadesh, the Hittite kingdom had come up against a new and dangerous enemy: Assyria. Its king, Shalmaneser I, had gained ever greater power, and King Hattusili was now afraid that the Assyrians would soon invade his borders. He also recognised that the Assyrians weren't just a threat to the Hittites. If they captured his kingdom, they would then threaten Ramesses and Egypt, which lay on his southern border. Therefore, he proposed that the two kingdoms drop their rivalry and instead enter into a pact with one another. Ramesses, who was now older and more interested in his construction projects than in military matters, immediately realised the benefits of no longer having to station a large force on his northern border in case of a Hittite attack.

After two years of negotiations between the two kings, emissaries from the Hittite court arrived at Ramesses's palace in Pi-Ramesses. They carried with them what was to become the first peace treaty in history. The accord between Ramesses II and Hattusili III was signed in 1258 BC. It was inscribed on a silver tablet with

Ten

other rulers besides Ramesses II bore the name Ramesses.

To preserve Ramesses the Great's distinctive, crooked nose, the embalmers stuffed it full of peppercorns.

Babylonian cuneiform, which was the international diplomatic language of the time. The two kings each received a copy. The treaty stated that the two kings would refrain from attacking one another – and, perhaps more importantly, would come to one another's aid if a third foreign power declared war on them. Furthermore, the two rulers agreed that Ramesses should continue to control Palestine and the Phoenician coast, while Hattusili retained Amurru and Kadesh.

ANOTHER NEW BRIDE

The relationship between the two great powers was further strengthened 12 years later, when Ramesses incorporated yet another new wife into his life. To the great sorrow of the pharaoh, disease had taken Queen Nefertari a few years after the peace treaty was signed with the Hittites. In an effort to further bind his new ally to him, Hattusili offered Ramesses his eldest daughter's hand in marriage.

In the thirty-fourth year of Ramesses's reign, the Hittite princess arrived in Egypt with a large retinue and an impressive dowry consisting of gold, silver, bronze, slaves, horses, oxen and goats. Ramesses's

ever-busy artisans started chiselling again; the new bride was "beautiful in the heart of his majesty, and he loved her more than anything", they carved. The once warring neighbours were now fully reconciled.

THE LAST GREAT PHARAOH

By this time, Egypt's mighty pharaoh was approaching 60 years of age. He was doing well by contemporary standards – most men in that era lived to around 54 years of age. But Ramesses's advancing years didn't seem to slow him down in the slightest. Indeed, he continued to rule for more than 30 more years, and the Egyptian people gradually began to believe that their great pharaoh was truly immortal. It came as a great shock, therefore, when his death was announced in 1213 BC, just as the Egyptians were preparing to celebrate his 67th year on the throne.

Many ordinary Egyptians had been born and raised with Ramesses as their king and deity, and a life without him as protector felt insecure. After all, it was their pharaoh who made sure that the Nile flooded its banks every year to nourish their crops, and who made the sun rise to give life to the people and the land. But the 90-year-old Ramesses

EYEWITNESS

PROBABLY RAMESSES HIMSELF / Kadesh

POEM OF PENTAUR

“His majesty was a youthful lord, active and without his peer; his arms powerful, his heart stout, his strength like Mont ... goodly of form like Atum, one rejoices at seeing his beauty ... he is braver than hundreds of thousands combined ... a thousand men are unable to stand firm before him.”

had lived his last years in pain, plagued by very human problems such as toothache and rheumatoid arthritis. It was high time his 60-year-old son Merenptah took over.

The world would never again see a pharaoh like Ramesses II – or Ramesses the Great, as he became known in posterity. Today, Ramesses II is remembered as the last of the great Egyptian pharaohs – just as he himself would have wanted.


Egypt never again reached the heights it had when Ramesses sat upon his throne in his beautiful palace in the new city of Pi-Ramesses. ■



Blue earthenware jars were used to embalm pharaohs.





An illustration of a battle scene, likely the Battle of Kadesh. It shows several chariots with archers and soldiers on foot. The style is a mix of sketch and color, with a warm, dusty color palette. The soldiers are wearing traditional ancient attire, including tunics and helmets. The chariots are depicted with horses and archers aiming bows. The background is a hazy, yellowish-brown, suggesting a battlefield environment.

BATTLE OF KADESH

2000-1190 BC

Syria was an ancient trade hub. Wealthy merchants and caravans from all corners of the world met there, so the area became a battleground between power-hungry kings who wanted control over the commerce. In particular, the Egyptians fought the Hittites aggressively over the lucrative trade routes. In the year 1274 BC, the two kingdoms' armies clashed at the city of Kadesh – in the largest chariot battle in history – to decide who would control the coveted land.

2000-1190 BC

2000 BC

The Hittites settle in Anatolia and found Hattusa.

1595 BC

King Hattusili plunders Babylon.

1274 BC

Egyptian and Hittite forces clash at the Battle of Kadesh.

1258 BC

The two parties negotiate a peace treaty.

1190 BC

The Hittite kingdom falls as enemy tribes invade.



2000 > 1595 > 1274 > 1258 > 1190 >

Whoever held power in Syria ruled the world. That was the opinion of leaders in the ancient Middle East. The land along the east coast of the Mediterranean, which today makes up Lebanon and Syria, was the undisputed trading hub of the time, with luxury goods imported from the East arriving by caravan. Here, ivory, copper, tin, earthenware and precious stones changed hands from merchant to merchant before being shipped west across the Mediterranean or through the desert.

Around 1300 BC, the region was split between two superpowers: Egypt in the south and the Hittite kingdom in the north.

They'd been fighting for power over Syria for centuries. Shortly after 1300 BC, the power struggle culminated in the largest chariot battle in history, on a plain near the city of Kadesh. The clash is also the earliest battle of which tactical details are known to historians. Pharaoh Ramesses II himself left behind a papyrus scroll containing a detailed poem about the battle and inscribed records of the event on temple walls.

HITTITES INVADIED ANATOLIA

No one could have predicted that the Hittite kingdom would

Curved sword from 1750 BC, found near the town of Nablus, on the present-day West Bank.

develop into a mighty power when, around 2000 BC, the Hittites migrated from the Russian steppes and settled around the city of Hattusa in north-east Anatolia, modern-day Turkey. They cultivated the fertile farmland there, which supplied them with wheat, barley and lentils, and provided their livestock with grass. There was plenty of wood for houses in the vast forests of the region, and the women made woollen garments from their flocks of sheep.

Archaeological discoveries of texts and figurines show that the Hittites worshipped a multitude of gods, historians have so far identified as many as 800. The Hittites were skilled craftsmen and immortalised their deities in stone or precious metals, such as bronze and gold. They also used an advanced written language – cuneiform – which they'd learned from the many

Assyrian traders in the area. The oldest discovery of the Hittites' cuneiform writing dates from 1700 BC.

ENEMY PLANTED WEEDS IN CITY

However, the Hittites had greater ambitions than crafts, agriculture and sheep breeding. They turned their attention to the rich land along the east coast of the Mediterranean Sea – Syria.

During their first centuries in Anatolia, however, the Hittites were unsuccessful in expanding their territory, and there was even fighting between their own tribes. For example, around the year 1600 BC, the Hittite king Anitta attacked Hattusa, even though it was populated by Hittites, because the city had been conquered and was now controlled by the so-called

Hattians. "In [the city's] place, I sowed weeds. Whoever becomes king after me and settles Hattusa again, may the Stormgod of Heaven smite him!" Anitta boasted in an inscription found at Hattusa, the present-day Turkish town of Boğazkale.

Over the course of a generation, though, the Hittites returned to their capital, and the leader appointed himself king under the name Hattusili, meaning "from Hattusa". Hattusili constructed a 2.5-kilometre fortification around the city and built his new palace on top of a ridge in the centre. However, a text written 200 years later states that the king overcame enemies and reached the "borders of the sea" – a description that, according to some academics, suggests that Hattusili extended the Hittite kingdom all the way to the southern Mediterranean and the Black Sea in the north. Hattusili's warriors also conquered the mighty city-state of Aleppo, and in 1595 BC, they plundered Babylon for the city's statues of gods, too.

According to some historians, the Hittites' strength lay in their tendency to form strategic alliances with the many small kingdoms that tried to dominate the area. However, in the 16th century BC, internal strife in the kingdom meant that the Hittites lost control of their new territories. And Egypt immediately entered the picture. Pharaoh Tutmosis I (1504-1492 BC) invaded the land of the Hittites and made a pact with the local rulers of the Mitanni kingdom, offering them autonomy in return for paying taxes to Egypt. But the border soon moved south again when the Hittites drove the Egyptians back.

The Hittites seriously established themselves as a superpower under King Suppiluliuma, who ascended to the throne in 1368 BC. Suppiluliuma secured strategic alliances by allowing family members to marry into the strongest rival tribes. With their support, he led his armies out to strengthen the kingdom, and the campaigns went so well that he continued through large parts of highly coveted Syria, including the city of Kadesh. With its location in the Amurru Valley, between two mountain ranges, the Egyptians viewed Kadesh as the gateway to Syria, and by conquering the city, Suppiluliuma had stirred up a hornet's nest.

ARMIES SENT TO KADESH

Barely a century later, the mighty Pharaoh Ramesses II, who had succeeded his father in 1279 BC, planned to put an end to the Hittites' rule of Syria once and for all. Egypt had allied itself with the Mitanni kingdom, which lay between the two rivals. But when one of the most powerful Mitanni kings turned his back on the Egyptians and declared his support for the Hittites, Ramesses saw red. The time had come to take the strategic city of Kadesh from the Hittites.

Ramesses II began preparations for the battle by building up his army and expanding his capital, Pi-Ramesses, located in the eastern part of the Nile Delta, and an >>>

TECHNOLOGY



CULTURE

Hittite writing was straight lines

Cuneiform was developed in Mesopotamia around 3200 BC and spread to many peoples in the Middle East, including the Hittites. Merchants, rulers and scribes learned to master the angular pictograms, which, like the

Egyptians' hieroglyphs, could both express what the symbol represented and be included as parts of words. The Hittites wrote with sticks in soft clay tablets, which then dried, so the writing was made up of straight lines.

ECONOMY

DAILY LIFE

SUPERPOWERS FOUGHT FOR SYRIA



Syria was a hub for trade routes between the Mediterranean and Mesopotamia. Control of trade was the key to world power, so ancient rulers fought fiercely to conquer the strategic area.

HATTUSA●

WASHUKANNI●

ALEPPO●
SYRIA

KADESH●

MEDITERRANEAN

PI-RAMESSES●

MEMPHIS●

THEBES●

RED SEA

NILE

HITTITE KINGDOM

■ Around the year 2000 BC, Hittite tribes settled in Anatolia. The rulers had dreams of great power, and succeeded in conquering large parts of Anatolia and coveted Syria. This made them the Egyptians' enemies.



MITANNI KINGDOM

■ Around 1500 BC, the Hurrians formed the Mitanni kingdom. At times, its rulers controlled the trade routes between Syria and Mesopotamia, but were not strong enough to withstand the Hittites from the north or the Egyptians from the south. Mitanni's kings entered an alliance with Egypt, but the kingdom was still invaded by Assyrians in the 13th century BC.



■ Egyptian pharaohs extended their kingdom – especially during the New Kingdom, 1550-1069 BC. They conquered Nubia, Libya and the Sinai Peninsula, but encountered fierce resistance from the Hittites in the north.



Heart of Hittite kingdom

Hittite kingdom, at its largest, circa 1400 BC

Heart of Mitanni kingdom

Mitanni kingdom, at its largest, circa 1400 BC

Heart of Egypt

Egypt, at its largest, circa 1550-1075 BC

● Important cities

0 300 km

Hittites drove out from their capital, Hattusa, in chariots.



“The chariots themselves crushed the Egyptian warriors”



Two Hittite clay drinking mugs from the 19th century BC, shaped like curly toed shoes.

➤ ideal starting point for a campaign against Syria. Meanwhile, the Hittite king, Muwatalli, also gathered his forces and sent them south towards Kadesh.

The bulk of Muwatalli's hardy warriors were professional soldiers who'd dedicated their lives to a military career and lived in barracks around Hattusa all year round. Muwatalli also recruited soldiers from among the peasants of the Hittite kingdom and his vassal states. Prisoners of war and mercenaries were included in his armies, too. According to Ramesses II, Muwatalli could muster 40,000 men, but his forces at Kadesh were far fewer in number.

The Hittite warriors could be recognised by their long, thick hair, which caused Ramesses II to call them feminine, but which also protected the men's necks from blows. They wore leather helmets on their heads, and white tunics on their bodies. Short leather boots protected their feet during week-long marches in the desert.

THREE MEN FOUGHT IN A CHARIOT

The Hittites were masterful archers, but also fought with spears and short, curved,

bronze swords. However, their strongest weapon on the battlefield was the chariot. Manned by three warriors, a chariot could plough right into an infantry division; while one soldier stabbed the enemy with his long spear, another protected him with his shield, and a third drove the chariot. When Muwatalli sent his chariot forces towards Kadesh, the dust must have been seen for miles over the Syrian desert.

Historians disagree on when the two armies clashed. Some believe that the battle took place in 1300 BC, while others date it to 1285 BC or 1274 BC. Egyptian sources say that Ramesses II left the capital, Pi-Ramesses, on "the ninth day of the second summer month", which corresponds to some time in our April, to embark upon the month-long march towards Syria. In addition to his retinue of courtiers and princes, Ramesses II took with him four divisions, each of which numbered 4,000 infantrymen, 1,000 chariot warriors, and 500 chariots. The divisions, named after the four gods Amun, Ra, Ptah and Set, consisted not only of Egyptians but also of Nubians,

Libyans, Canaanites and other peoples from Egypt's vassal states.

Ramesses II split up the divisions and took one of them – Amun – with him along the coast, where he then sent part of it – the elite Ne'arin force – further north to ensure loyalty from the coastal towns. Meanwhile, the other three divisions marched along inland routes. Splitting up the troops was standard Egyptian military practice. The soldiers lived on food they could find in the fields or growing wild, and by spreading out, it was easier to find enough for everyone.

2,500

chariots attacked the Egyptians, according to Ramesses II's account

BEDOUINS PLAYED A TRICK

Ramesses II and the Amun division reached the Orontes River a few kilometres from Kadesh and encountered a couple of Bedouins who had important news for the pharaoh: the Hittite king had fled 200 kilometres north to Aleppo with his tail between his legs, they claimed.

Convinced that the Egyptian forces would now easily be able to vanquish the Hittites, Ramesses II struck camp on the plains outside Kadesh. He placed his golden throne in the middle of the camp, and erected a magnificent shrine to the sun

THE BULLDOZER

THE HITTITES' CHARIOT: A solid construction made the Hittites' chariot ideal for melee combat, where it could be driven into the enemy's ranks. One warrior stabbed the opponents with his spear, while another protected him with a shield. A third drove the chariot. The weight of its body plus the three warriors meant it was slower than the Egyptians' chariot and more easily overturned in sharp turns.

If one warrior was knocked off the chariot, the other two could still fight

Crew
Pulled by
Strength
Weakness

Three warriors
Two horses
Solid in melee
Heavy, slow

A warrior with a shield protected his partner from spears

Egyptian reliefs show that the horses wore armour

The Hittites' chariots were solidly built from wood. Their strength was being able to drive into the enemy and mow the soldiers down

god Amun. But his joy was short-lived. That evening, a pair of foreigners was brought into the camp, and when beaten by the pharaoh's bodyguards, they confessed that they were scouts for the Hittite king, and that the two Bedouins had taken the Egyptians for a ride. The news of Muwatalli's retreat was a ruse to make Ramesses II think he had the upper hand, so would be unprepared when the Hittites struck.

A few kilometres from the camp, on the other side of Kadesh, the Hittite soldiers stood ready to battle, "more numerous than the sand on the banks of the river". Ramesses paled. With just one division available, all would be lost when the Hittites attacked

FIVE HUNDRED CHARIOTS ATTACK

The pharaoh hurriedly sent his closest adviser, the vizier, off in a chariot to alert the other divisions, so they could come to the rescue. The Ra division, which had encamped just over 11 kilometres south-east of Kadesh overnight, was awakened by the vizier in the early hours of morning, and immediately set off towards the pharaoh's camp.

During the march across the plain, they had a view of Kadesh, situated up on a ridge. Around the city, the Orontes River branched off through the arid landscape. The Egyptian infantrymen, wearing tunics, were armed with bows, spears and shields. Dark Nubian warriors, in traditional loincloths of animal skins and adorned with white feathers, ran



Ramesses II's memorial temple, the Ramesseum, is adorned with scenes from the battle of Kadesh - here are reliefs of Hittite prisoners of war

forward with bows. Behind them rolled the chariots, each manned by two soldiers.

Halfway to the Egyptians' camp, a cloud of dust rose from the plain to the right of the Ra division, the sound of whinnying horses and rumbling wheels approached, and soon after, the heavy chariots of the Hittites ploughed into the ranks of the pharaoh's soldiers. The chariots themselves crushed the Egyptian warriors, while their crews stabbed at the men on all sides. Many of the Ra division's soldiers panicked. They threw down their weapons and fled in all directions. Others fought on towards

Ramesses II's camp, pursued by the Hittites. Muwatalli's warriors

attacked the camp from the west and tore down barricades and tents, while cutting down and killing the pharaoh's men.

Fired up by their success, the Hittites jumped from their chariots to plunder the camp. War booty was a significant part of the payment for their service. But now they met resistance from the Egyptians, who chased their enemies out of the camp. Those who didn't manage to escape were executed. With a firm grip, the Egyptians grabbed their long hair, forced their heads back, and sliced the Hittites' stomachs with a quick slash of the infantrymen's sickle-shaped sword, the khopesh.

ENEMY'S HANDS CUT OFF

While the fighting was going on, Ramesses II prepared for a

counter-attack at the opposite end of the camp and, flanked by his chariot warriors, drove after the Hittites. In Ramesses II's poem about the battle, the pharaoh himself takes all the credit for the victory.

"I had found 2,500 pairs of horses. I was in the midst of them, but they were dashed in pieces before my horses. None of them raised his hand to fight nor had they the courage to thrust with the spear."

The report, however, was greatly exaggerated. The Hittites were

Archers fired arrows from chariots traveling at full speed

THE RACING CAR

THE EGYPTIANS' CHARIOT: The Egyptians, inspired by the Hyksos people, who had previously occupied large parts of the Nile Delta, built light, fast chariots that were also stable when turning. The chariots were far superior to those of their Hittite enemies, and the pharaoh's troops could easily overtake the enemy. During an attack, an archer wearing armour fired at enemy soldiers while the chariot was travelling at full speed. Another warrior controlled the horses while protecting himself with a shield.

The Egyptians built the body from wood, covered with hides

Crew	Two warriors
Pulled by	Two horses
Strength	Fast
Weakness	Lightly manned

The wide distance between the wheels made the Egyptian tanks very manoeuvrable and stable

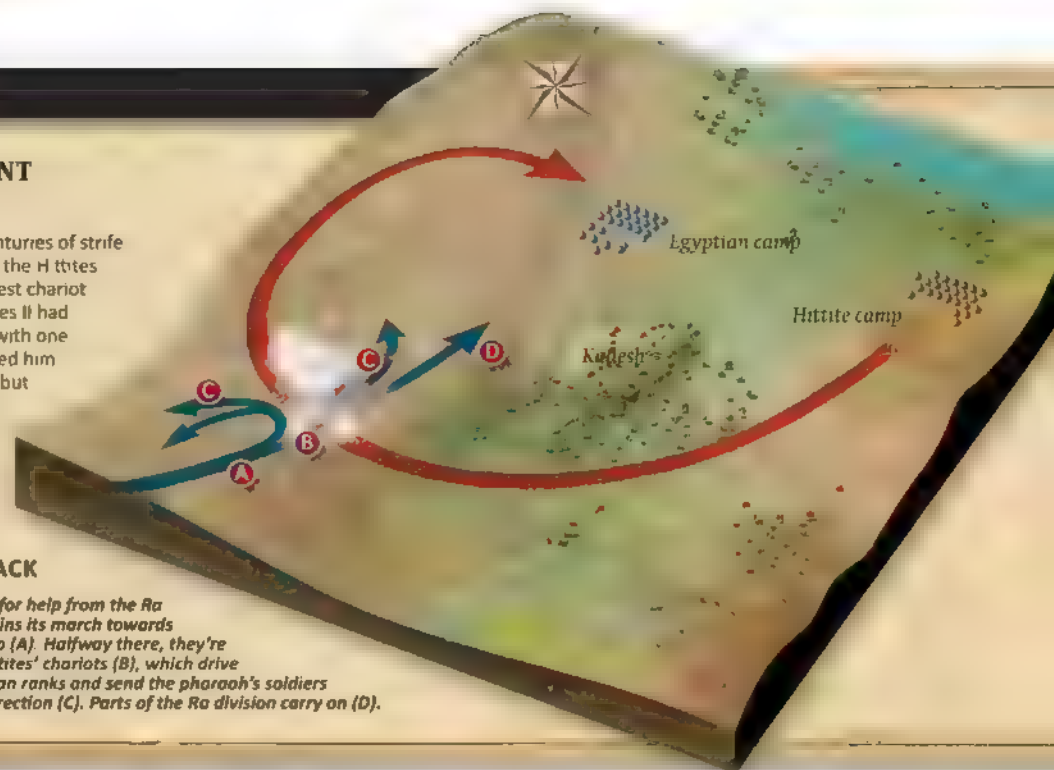
Bronze armour protected the chariot's archer



BATTLE OF KADESH

PHARAOH'S CHARIOTS SENT HITTITES ON THE RUN

Around the year 1274 BC, after centuries of strife over the town of Kadesh in Syria, the Hittites and Egyptians clashed in the largest chariot battle in world history. Pharaoh Ramesses II had reached Kadesh after a month's march with one of his four divisions. Two Bedouins tricked him into believing that the Hittites had fled, but in reality, the enemy, led by Hittite King Muwatalli, was preparing for battle on the other side of the city.



HITTITES ATTACK

Ramesses sends for help from the Ra division, which begins its march towards the pharaoh's camp (A). Halfway there, they're attacked by the Hittites' chariots (B), which drive through the Egyptian ranks and send the pharaoh's soldiers running in every direction (C). Parts of the Ra division carry on (D).

>>> probably stronger than the Egyptians, but historians estimate they only had around 500 chariots. However, it is probably true that their fighting spirit was weakened and the exhausted army was in disarray.

The Egyptian chariots proved to be far more manoeuvrable than the Hittites'. The pharaoh's soldiers quickly overtook their enemies and fired arrows at the Hittites, who fell dead from the chariots, one by one. The Hittites retreated across the plain.

The Egyptians stopped – the enemy had been driven out. The pharaoh's men stopped at the fallen Hittites, killed the wounded and chopped the corpses' hands off. The hands would be counted at camp, and each soldier would receive payment according to how many he'd collected.

HITTITES DRIVEN INTO RIVER

In the Hittites' camp on the other side of the Orontes, Muwatalli gathered his last

troops. His horde of chariots crossed the river and arrived at Ramesses II's camp to finally break the enemy. But just as the first chariots reached the Egyptians' camp, the pharaoh's elite Ne'arin division returned from its journey to the northern coastal cities. The timing of the arrival was pure coincidence, but could not have been better for the Egyptians. The fresh Ne'arin soldiers headed straight for the Hittites, while Ramesses II's Amun division approached from the other side. The Hittites were trapped between the two Egyptian forces.

The river remained the only escape route for the Hittites, and in panic they drove straight into the water, where the current took some of them. Others, including King Muwatalli, swam ashore. Ramesses II later reported that he "made them fall into the waters just as the

crocodiles fall in. They tumbled down on their faces ... I killed them at my pleasure".

According to historians, however, Ramesses II's victory was neither as crushing nor as heroic as he made out. The pharaoh could probably have drawn a line in the sand and stopped the Hittites' advance, but he didn't have the

power to take Kadesh or regain dominion over Syria. Large parts of the rich trading country remained under Muwatalli's control, and the power struggles between the Egyptians and the Hittites continued for many years. The few Hittite sources that mention the battle claim that

the Hittites won. Other sources make it clear that the parties made a peace treaty.

"The pharaoh's men stopped at the fallen Hittites, killed the wounded and chopped the corpses' hands off."

ENEMIES ENTERED TRUCE

Hardly had the dust settled over the plain at Kadesh before the Hittites were again attacked by both external and internal enemies. While Muwatalli had been busy fighting the Egyptians, the Assyrians invaded the Hittite territories from the east. And when Muwatalli died a few years after the battle, the kingdom was plagued by internal power struggles. His son, Mursili III, took the throne, but his position was threatened by his power-hungry uncle, Hattusili. The rivalry divided the Hittites, each supporting their favourite king. Hattusili eventually ousted his nephew and took over the kingdom, but at that point, the whole of western Anatolia seceded.

Sixteen years after the Battle of Kadesh, Hattusili felt so threatened by the Assyrians that he needed allies, so negotiated a peace treaty with the Egyptians, who also lacked the strength for any more battles over Syria. A marriage between the now middle-aged

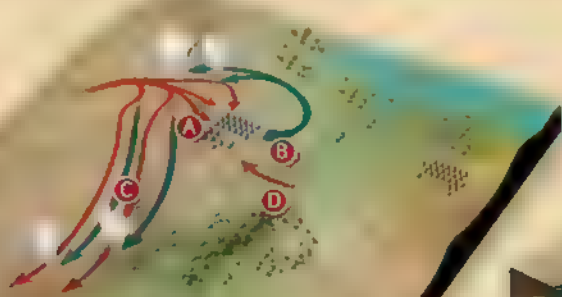
ENEMIES WROTE HISTORY'S OLDEST PEACE TREATY

Pressure from advancing Assyrians induced the Hittites and Egyptians to negotiate history's oldest known peace treaty, 16 years after the Battle of Kadesh. It obliged the former enemies to help

each other in war. The Egyptian copy was found in 1828 on a stele in Karnak, while the Hittite one was discovered in 1906-08, during the excavation of Hattusa, now Bogazkale, in present-day Turkey.

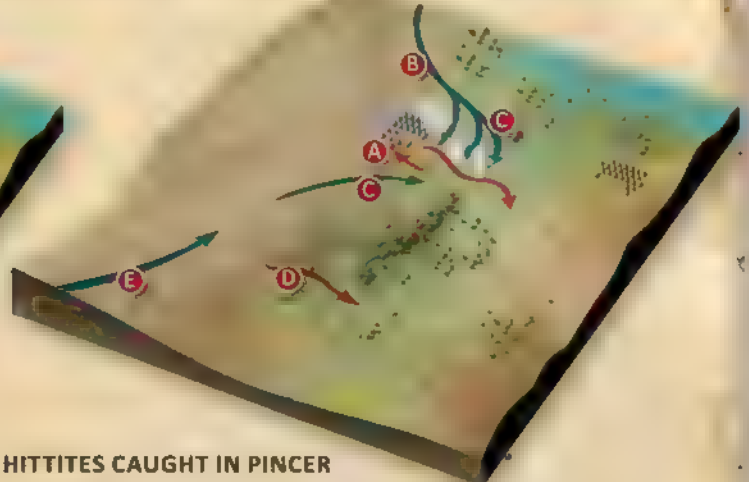
IMPORTANT EVENTS





RAMESSES II STRIKES BACK

■ The Hittite forces attack Ramesses II's camp from the west (A). In the eastern part of the camp, the pharaoh prepares to strike. With his chariot forces, he drives out of the camp's eastern gate (B) and catches up with the exhausted fleeing Hittite warriors (C). The Hittite king Muwatalli launches a new attack (D).



HITTITES CAUGHT IN PINCER

■ The Hittite king gathers his last forces and attacks the pharaoh's camp from the east (A). At the same time, Ramesses II's elite Ne'arin division arrives, which has been travelling along the coast (B). With the pharaoh's men, they surround the Hittites (C) and drive them into the Orontes River. Meanwhile, the remnants of the second Hittite force retreat (D). Soon after, another Egyptian division arrives from the south (E).

The figure on the left is a Hittite prisoner of war. According to the Egyptians, being upside down was a sign that a person was cursed

Ramesses II and a young Hittite princess - sealed the deal

SEAFARERS ATTACKED

But the peace treaty couldn't save the Hittite kingdom. Its enemies cut off trade routes, damaging prosperity, and around 1200 BC, the harvest failed, and only grain imports from Egypt prevented famine. Soon after, the kingdom was invaded by a tribe called the Sea Peoples, who ravaged northern Syria and destroyed the port city of Ugarit. "The enemy's ships came, my cities were burned, and they did evil things in my country," wrote the city's last king, Ammurapi, to his father. The Sea Peoples didn't reach Hattusa, but the incursion weakened the country so much that other tribes were able to invade. Around 1190 BC, the Hittite kingdom fell, and Hattusa burned to the ground.

Unlike the Egyptians, the Hittites left no spectacular buildings for posterity, and their culture was lost. Although the Hittite territory passed to the Persians, Greeks and the Romans, the area remained a trading hub, which rulers would go to war to get their hands on for centuries ■







STRANGE SYMBOLS

3400 BC-AD 1822

In 1799, during Napoleon's campaign in Egypt, French engineering troops near Rosetta discovered a large stone covered with mysterious symbols. The block would prove to be the key to deciphering hieroglyphs, the enigmatic pictorial writing system used in ancient Egypt. Using the Rosetta Stone as a dictionary, scholars were able to read millennia-old texts about everything from the mighty pharaohs to trade accounts, love poetry and magical books about death.

3400 BC-1822 AD

3400 BC

Egypt's
oldest known
hieroglyphs
are inscribed.

1500 BC

Books of
the Dead
become
popular.

AD 380

Egyptian
writing dies
out under
Roman rule.

1799

Rosetta Stone
surfaces at
Napoleon's
military camp

1822

A French scholar
decodes the
Rosetta Stone's
hieroglyphs.

One July day in 1799, a most unusual object appeared in Napoleon's camp near the port city of Rosetta, in Egypt. While rebuilding Fort Julien nearby, Napoleon's engineering troops encountered a large, black boulder, densely inscribed with mysterious characters. The officer on duty knew immediately that this was a matter for his superior, so he had stone, which measured 114 centimetres and weighed over 750 kilograms, dragged to General Jacques-François Menou's tent.

Upon closer inspection, Napoleon's team of scholars was able to establish

that the spectacular stone was adorned with three different types of characters. First, text consisting of Egyptian drawings of birds, waves and other symbols then some unusual scrawls and, finally, recognisable Greek letters.

Although the French soldiers probably sensed that they'd dug a treasure out of the desert sand, they had no idea how groundbreaking their discovery would be. The Rosetta Stone, named after the nearby city, would prove to be a unique dictionary of the ancient Egyptians' written language. And it

Writing tools found in
Tutankhamun's tomb.

became the key to cracking the code of the enigmatic hieroglyphs.

FROM DRAWINGS TO ALPHABET

For millennia, hieroglyphs had formed the written language of ancient Egypt, and had been used for everything from tax accounts to mythical stories, rude comics and magical rites that ensured the deceased a safe journey to the afterlife. The word hieroglyph is composed of the Greek words for sacred, *hieros*, and carving, *gluphe*.

The oldest hieroglyphs found by archaeologists originate from burial chambers in Abydos, present-day Umm El Qa'ab, 480 kilometres south of Cairo, and are 5,400 years old. The symbols are carved on simple clay seals that the Egyptians used to secure the food jars that were to accompany the deceased in their tombs.

In the same area, archaeologists have excavated a number of labels bearing carved hieroglyphs, dated to around the year 3200 BC. The labels are made of bone and ivory, and were used on containers that were filled with goods such as grain, so traders would know what was inside and where the goods came from.

The hieroglyphs from Abydos show drawings of people, animals and items that people knew from their daily life. When Egyptologists compared these early hieroglyphs with texts from later periods, they established that the characters became more simplistic over time, so that the symbol for water, for example, became a simple wavy line. An alphabet of hieroglyphs also evolved, so characters from the Second Dynasty (2890-2686 BC)



This bone label, found near Abydos, was used for trade and is over 5,000 years old. It's one of the earliest examples of hieroglyphs.

not only described individual things, places or phenomena, but could also form complete sentences, and in the Old Kingdom (2686-2160 BC), the alphabet contained up to 800 different characters.

The hieroglyphs still appeared as line drawings of objects, but had now evolved to be phonetic as well – that is, associated with a particular sound. When an Egyptian writer inscribed a symbol shaped like a

hand followed by a straw mat and a loaf of bread, he was representing the sounds "d", "p" and "t" – the Egyptian word for boat. The hieroglyphic language thus functioned a little like a rebus puzzle, where each character could either represent phenomena and things, or function as a letter. The process

of creating a long series of drawings of animals, humans and plants was slow, so around the year 2500 BC, the Egyptians developed a more fluent, simplified form of writing, which the Greeks later called hieratic, and which is more like modern written languages.

Hieratic writing could be quickly scribbled down with ink on papyrus paper-thin sheets made from the papyrus plant. However, the Egyptians didn't abandon hieroglyphs, but used the two alphabets in parallel.

RED INK CORRECTED MISTAKES

The ancient Egyptians wrote on stones, skins, leather and papyrus. Egyptologists have found large numbers of papyrus scrolls, preserved by the arid desert climate, but the animal skins didn't survive the millennia in the sand. Both papyrus and leather were expensive, so Egyptian scribes and their students also used other materials when practising or writing drafts. They carved characters on tablets of soft, light limestone, for example, or pieces of wood covered with a thin layer of lime. Others wrote in ink on large pieces of broken pottery.

The scribe worked with a pen made from a reed that had been split at one end, so it

The direction
of reading in
hieroglyphic
text is determined
by which way the
characters face

TECHNOLOGY

CULTURE

ECONOMY

DAILY LIFE

Papyrus was beaten paper-thin

The sheets of papyrus that the Egyptians wrote and painted on were made from the reed-like *Cyperus papyrus*, which grew in the Nile Delta and along the riverbank. After harvest, the stalks were cut into 30-centimetre strips. These

were laid on top of each other in two layers – one vertically and the other horizontally – and beaten paper-thin with a stick. When the sheets dried, the plant's sap acted as a natural glue that held the strips together.



“ Ancient Egyptians wrote on stones, skins, leather and papyrus ”

acted like a brush, holding the ink. He was also equipped with a knife to cut papyrus, as well as an inkwell and different colours of ink. The Egyptians usually wrote in black ink made from soot from oil lamps, for example - mixed with plant sap. Another formula consisted of wine mixed with sap and a sprinkle of vitriol (iron sulphate) - a green powder that gives a bluish-black ink. To correct errors, the writers used red ink, with pigment from ochre, which the Egyptians ground up on a block of granite or marble. Green and blue inks for the colourful vignettes were probably made of copper.

THE LANGUAGE OF THE ELITE

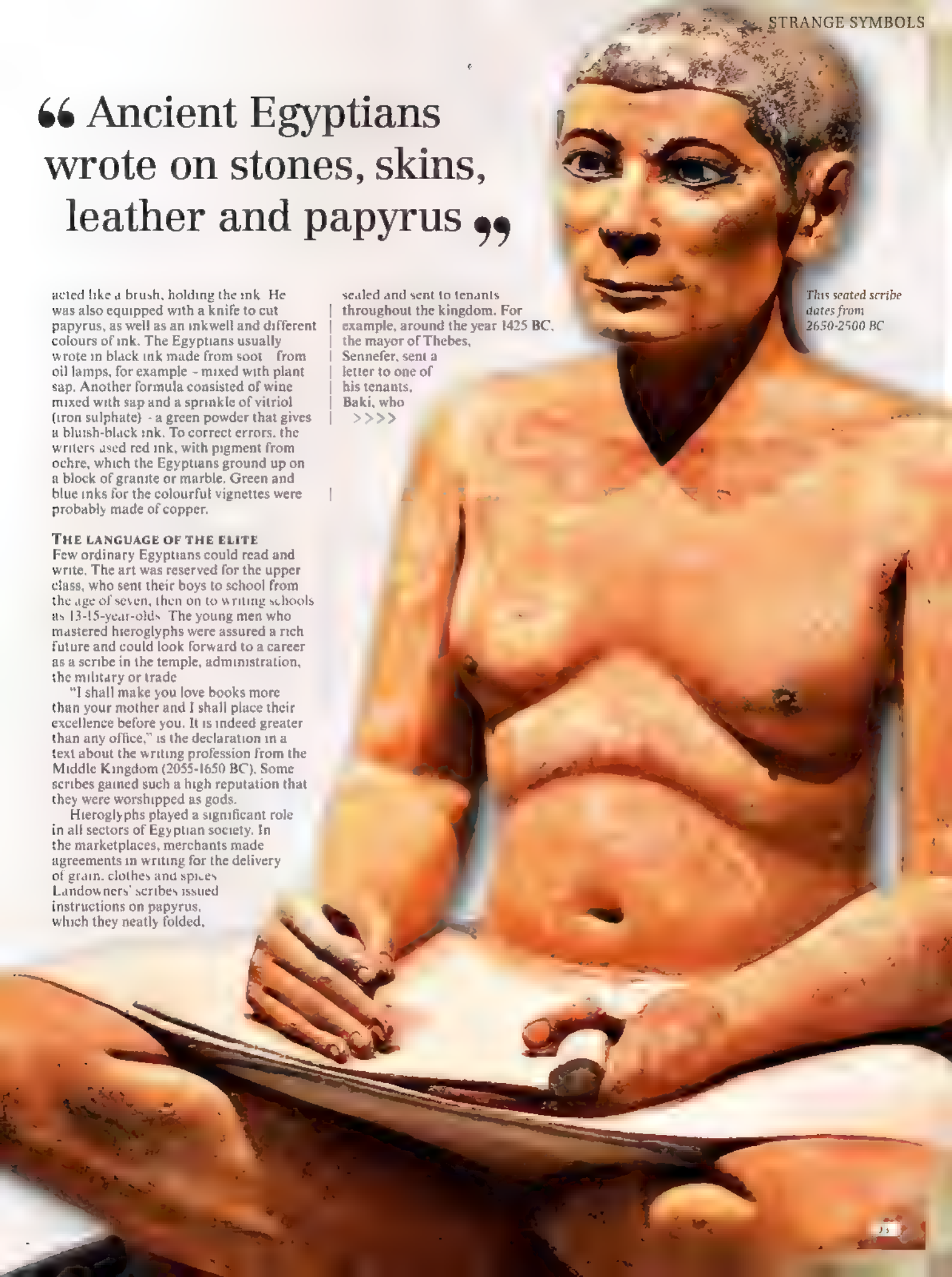
Few ordinary Egyptians could read and write. The art was reserved for the upper class, who sent their boys to school from the age of seven, then on to writing schools as 13-15-year-olds. The young men who mastered hieroglyphs were assured a rich future and could look forward to a career as a scribe in the temple, administration, the military or trade.

"I shall make you love books more than your mother and I shall place their excellence before you. It is indeed greater than any office," is the declaration in a text about the writing profession from the Middle Kingdom (2055-1650 BC). Some scribes gained such a high reputation that they were worshipped as gods.

Hieroglyphs played a significant role in all sectors of Egyptian society. In the marketplaces, merchants made agreements in writing for the delivery of grain, clothes and spices. Landowners' scribes issued instructions on papyrus, which they neatly folded,

sealed and sent to tenants throughout the kingdom. For example, around the year 1425 BC, the mayor of Thebes, Sennefer, sent a letter to one of his tenants, Baki, who >>>>

This seated scribe dates from 2650-2500 BC



SYMBOLS REPRESENT BOTH SOUNDS AND THINGS

Each hieroglyph in the Egyptian alphabet has its own meaning, but can also function as a letter in a word. The characters can be read from left to right and vice versa, or from top to bottom. The alphabet contains no vowels, and the Egyptians didn't use punctuation.

TWISTED FLAX. The symbol for twisted flax reads as "h"

FOLDED CLOTH. A curved line represents a folded cloth, and stands for the letter "s", but also means "her"

BREAD. The symbol for bread can also be used to represent the letter "t"

CARTOUCHE. The oval frames – cartouches – highlight names. This says "Amenhotep". The sun and the bird next to it mean "son-of-Ra"

REED. Drawings of the reed plant are often included in hieroglyphic texts. One reed transliterates as "i", two reeds stand for "y". Here they are part of the name of Pharaoh Amenhotep III's queen, Tiye

LIFE. The Egyptians called the symbol of life the ankh – it was one of the most widely used and powerful characters

HORNED VIPER. This animal stands for the letter "f"

STACKED CHARACTERS. When several hieroglyphs are on top of each other, the top character must be read first

OWL. An owl represents the letter "m". If the owl is facing right, the text should be read from right to left; if it is looking to the left, it should be read in the opposite direction

SNAKE. Several of Egypt's animals appear in the hieroglyphic alphabet. A snake stands for the letter "j"

LION. This represents the lions that the pharaoh shot, according to the text

MOUTH. An oval represents a mouth and stands for the letter "r". A folded cloth, a sparrow, a mouth, a reed, the water symbol and a man together mean "to drink"

The text on this scarab-shaped amulet boasts that Pharaoh Amenhotep III killed 102 wild lions with his own arrows



>> was apparently a bit lazy. In the letter, the mayor orders Baki to collect plants, lotus flowers and other things suitable as offerings, as well as to cut 5,000 boards and 200 pieces of wood. The angry mayor concludes the letter with a tirade

"You are not to slack, because I know that you are a *wisl*, and fond of eating in bed." Academics have been unable to translate the word *wisl* accurately, but the context speaks for itself.

Egyptian doctors used hieroglyphs to gather and pass on knowledge of diseases and treatments. Near the city of El Lahun, 130 kilometres from Cairo,

archaeologists have found a copy of a primitive medical handbook written on papyrus. The author gives the following advice to doctors treating women for pain in the back, pelvis and thigh:

"You should say it is discharges of the womb. You should treat it with a measure of carob fruit, a measure of pellets, one *hin* [a jar; about 0.5 litres] of cow milk. Boil, cool, mix together, drink on four mornings."

HIDDEN EROTICISM ON PAPYRUS

Today, hieroglyphs give Egyptologists a unique insight into the ancient Egyptians' hopes and dreams, and how they would like to be remembered for posterity. The pharaohs used the written language to immortalise tales of varying veracity of their magnificent exploits. For example, Ramesses II filled several temples, including his own memorial temple, the Ramesseum in Thebes, with the story of how he almost single-handedly defeated the Egyptians' arch-enemies, the Hittites, in a battle at the city of Kadesh, around the year 1300 BC. In fact, each army suffered both defeats and small victories during the battle, which ended in a peace treaty between the parties.

Other discoveries testify to the passionate longings of Egyptians in

The Book of the Dead, written on papyrus, and contained practical advice for preparing a mummy, such as ensuring that its mouth was open so that the deceased could breathe and speak in the afterlife

love: "As day dawned, very early, it came about as he expected: this goddess encountered him, as he placed himself [at] the front of the pool. She came, naked of her clothing, letting her hair down," reads a papyrus scroll from the Twelfth Dynasty in the Middle Kingdom.

A less poetic version of love was also set down on a papyrus scroll that contained drawings of a priest and a woman in various erotic positions. Each image was accompanied by a short piece of text, like speech bubbles in modern comics, which academics have unfortunately been unable to decipher. According to Egyptologists, however, the drawings and text must have been risqué enough that the author wanted to hide

them. The first part of the papyrus scroll contains innocent animal fables, and the reader has to go down to the bottom of the scroll to find the erotic sections

SYMBOLS CARED FOR THE DEAD

Hieroglyphs also had a religious and even magical meaning. The so-called reading priests used them to share tales of the gods. But according to the Egyptians, the hieroglyphs themselves also possessed magical power. An amulet with a hieroglyph shaped like a scarab, for example, would protect the wearer through life and rebirth.

When someone died, hieroglyphs were also used for their magical powers on the way through the underworld and in the afterlife. The walls of royal and high-ranking Egyptians' tombs were covered with wishes for life after death and texts that protected the deceased on the journey.

For example, the tomb of pharaoh Unas, who reigned 2375-2345 BC, had the

following inscription: "Ra-Amun [the sun god], this Unas comes to you ... May you cross the sky united in dark. May you rise in lightland, the place in which you shine." Archaeologists also found unusual images on the walls of Unas's resting place. The murals depicted animals or people who all lacked an arm, a leg or were otherwise deformed. According to academics, the characters were shown this way because creatures with disabilities would not be able to attack the pharaoh in the afterlife.

SCRIBES SOLD STANDARDISED BOOKS

The inscriptions in Unas's burial chamber are some of the earliest examples of the kind of tomb writings that developed into

>>



Papyrus was also used to make sandals.



Scribes used hieroglyphs to keep accurate records of grain collection.

strange symbols to communicate surreptitiously. Some Christian Romans believed that the characters also had magical powers and were dangerous, because they were associated with the Egyptians' pagan deities.

A Christian hermit, who for a time settled in the tomb of Ramesses IV in the Valley of the Kings, was so anxious about the inscriptions in the tomb

that he painted over them. The recluse claimed that the symbols were so powerful that they would take control of his thoughts and drive him away from God.

The use of hieroglyphs died out completely after the Romans officially converted to Christianity in the year AD 380, and the last hieroglyphs known to Egyptologists are dated to the year 394 and found on the walls of a shrine to the Nubian god Mandolis, on the island of Philae in the southern part of the Nile.

SYMBOLS HIDDEN IN SAND

The tomb inscriptions, Books of the Dead, ornate tablets, accounting lists and medical manuals became hidden and forgotten in temples, or covered with sand in the desert, and knowledge of the Egyptians' writing faded with each successive generation.

It was not until 2,000 years later, in the 17th century, that a passion for classical antiquity grew among Renaissance scholars. Academics collected the relics from Egypt's desert, but were at a loss when it came to deciphering the hieroglyphs.

In 1799, in an attempt to promote France as a scientific pioneer, Napoleon took a research team on one of his major military expeditions – the campaign in Egypt, which aimed to disrupt Britain's trade route to India and thus weaken Napoleon's enemy. It was on this expedition that his

engineering troops stumbled upon the enigmatic Rosetta Stone.

The French began to examine the stone, but they soon had other things to think about. The war wasn't going Napoleon's way, and by the summer of 1799, it was clear that the British would capture Alexandria and defeat the French. When the two sides entered into a ceasefire on 26th August, French General Jacques-François Menou was forced to accept that all of France's archaeological treasures would fall into enemy hands. The general desperately tried to hide the Rosetta Stone under a pile of carpets at his private residence in Cairo. But before long, Menou had to wave goodbye to the imposing slab of rock as it left Egypt on a ship bound for England.

LINGUIST ABANDONED THE STONE

The Rosetta Stone was exhibited at the British Museum, and academics flocked to it, hoping to crack the enigmatic code. They were able to ascertain that the three texts were in Egyptian hieroglyphs, demotic writing, which the scholars could not decipher, and ancient Greek, but then they got stuck. Until a gifted academic called Thomas Young came on the scene in 1814.

Young had mastered both Greek and Latin by the age of 14, then studied French, Italian, Hebrew, German, Syrian, Arabic, Samaritan, Turkish, Amharic (a Semitic language spoken in Ethiopia) and Coptic (an old Egyptian language). Now the linguist threw himself into deciphering the forgotten

language of the Rosetta Stone and quickly discovered that the demotic writing was like simplified hieroglyphs. Even more groundbreaking was his discovery that the three texts had the same content, so the Rosetta Stone could be used as a dictionary between hieroglyphs, demotic writing and ancient Greek. Young also worked out that hieroglyphs probably weren't used as signs with magical meanings, as many claimed, but were simply the Egyptians' letters.

The linguist concentrated in particular on certain words that were enclosed by an oval frame. Several scholars believed that these words referred to the names of kings and queens, and by following that lead, Young interpreted words such as "king" and "Egypt". Despite his breakthroughs,

Fourteen

lines of hieroglyphs corresponded to 54 lines of ancient Greek on the Rosetta Stone

the Egyptians' so-called Books of the Dead. The books were to protect the dead from decaying, dying again, being beheaded or being turned upside down for eternity – a condition that, according to the Egyptians, afflicted the damned.

In the New Kingdom (1550-1069 BC), Books of the Dead written on papyrus were an established feature of burial rituals not only for royalty but for the whole upper class. Scribes offered more or less standardised editions of the Books of the Dead, and the business continued until the first century BC, when the books went out of fashion.

CHRISTIANS FEARED HIEROGLYPHS

Hieroglyphs persisted for millennia, outlasting rulers and surviving invasions. However, when Alexander the Great conquered Egypt in the mid-300s BC, and in the ensuing Ptolemaic period, Greek letters began to mix with hieroglyphs and the hieratic characters. And after the Roman invasion of 30 BC, the Egyptians' traditional writing gradually disappeared in favour of the Romans' Latin alphabet.

Throughout the Roman Empire's 400-year occupation of Egypt, stories abounded about how the Egyptians used their

JEAN-FRANÇOIS CHAMPOLLION 1790-1832

FRENCH SCHOLAR CRACKED THE CODE

■ As a mere 17-year-old, Jean-François Champollion declared that he would solve the riddle of hieroglyphs. The young academic was far from an obvious candidate to join the scholarly super league. He came from a poor family, his mother died young and his father drank. Champollion was also in poor health and missed much of his schooling

because he was confined to bed. This didn't hold him back, however. Aged 30, he returned to his teenage obsession, working diligently for two years on the Rosetta Stone's inscriptions. He finally cracked the code in 1822, declaring the mystery of hieroglyphs solved. Two years later, he travelled for the first time to the Egypt he'd been reading about since childhood. At the age of only 42, he collapsed and died of a heart attack.

Studied the Rosetta Stone – Cracked the hieroglyphic code – Professor of Egyptology

“I got it!” exclaimed Champollion, before collapsing”

Young didn't have the patience to expend any more effort on the hieroglyphs, and threw himself into other projects.

However, in 1820, on the other side of the Channel, another gifted scholar was inspired by the work of Young, and began searching once more for the answer to the Rosetta Stone riddle. For the next two years, the Frenchman Jean-François Champollion compared the two unknown languages against the Greek text

SUN SYMBOL LED TO BREAKTHROUGH

One morning in August 1822, Champollion was bent over several sheets of hieroglyphs copied from a newly discovered temple to Pharaoh Ramesses II in southern Egypt. Champollion knew that the sun was called *ra* in the ancient Egyptian Coptic language, so when he saw that the first hieroglyph in a word was a sun sign, he guessed that it must stand for “ra”. He knew from previous studies that the Rosetta Stone's encircled words were linked to royalty and that led him to speculate that the sign a little further on could be an “s”, which would marry up with the Greek text's mention of Ramesses. After all, he knew from Young's work that each hieroglyph was not only a symbol that represented something, but it also functioned as a letter. It was the breakthrough Champollion had been searching for. This new knowledge enabled him to recognise all the letters of Ramesses, which meant he could also guess at the name of Tutmosé. The academic grabbed his papers and hurried through Paris to his brother's

office a few streets away “I got it!” exclaimed Champollion, before collapsing from exhaustion

After more than a month of further work, Champollion was able to declare the mystery of the hieroglyphs solved. The inscription on the famous stone – a declaration of support for Pharaoh Ptolemy V, written by a priest in 196 BC – could now be interpreted in Greek, demotic and hieroglyphs.

During the last months of 1822, Champollion deciphered 864 different hieroglyphs – the Egyptians used several thousand characters in certain periods, but only 800 or so at other times

His code-breaking opened the door for other academics to study Egypt's hieroglyphic inscriptions. Archaeologists no longer had to guess the purpose of monuments and illustrations: the hieroglyphs revealed the Egyptians' own stories ■

Napoleon's team of scholars studied the mysterious Rosetta Stone







EGYPT IN THE BIBLE

1627 BC-Today

According to the Old Testament, frogs, lice, flies, hailstorms, swarms of locusts and deadly diseases were sent to punish Egypt because its pharaoh refused to free the Hebrews. Finally, after the death of his firstborn child, the pharaoh relented and the Jews were able to flee across the Red Sea, which Moses parted with his staff, to arrive in the Promised Land: Israel.

Modern scholars have combed Egypt's desert sands to determine whether there is any hard evidence for the famous biblical story or whether belief in the tale remains a matter of pure faith.

1627 BC-Today

1627 BC

The volcano on today's Santorini explodes.

13th c. BC

Scrolls claim that the Nile turned to blood.

1213 BC

Israel named on an Egyptian monument

1883

Archaeologists go to Egypt to look for traces of the Hebrews.

1997 Two US

researchers use science to try to explain the plagues.

1627 > 1300 > 1213 > 1883 > 1997



An ancient Egyptian artisan made this box shaped like a locust.

The inhabitants of the Nile Valley were beside themselves. The river that cut through the barren desert landscape was their very life source – without the river, they couldn't cultivate their fields, go fishing or quench their thirst. But now, as the Egyptians looked on in horror, the water turned red and shoals of fish floated dead on the surface.

Ancient Egypt forms the backdrop for several stories from the Bible's Old Testament, including one about the Nile's water turning into blood. According to the book of Exodus, pharaoh refuses to release his Jewish slaves, prompting God to send ten plagues to ravage Egypt.

In an attempt to clarify whether the Bible's stories are simply wonderful tales or are rooted in fact, scientists have spent centuries combing Egypt's desert sands for archaeological traces of the Hebrews. They have also been searching for natural phenomena that could provide a scientific explanation for the ten plagues.

ALL BOYS WERE TO BE MURDERED

According to the story of the ten plagues, Egypt's pharaoh fears that the growing number of Hebrews in his land are planning a revolt. He therefore forces the Jews to become slave labourers and, in addition, orders all newborn Hebrew boys to be murdered. When the biblical character of Moses is born, his parents try to spare him from the mass infanticide by putting him in

a reed basket and sending him down the Nile. Luckily, the pharaoh's daughter finds the baby and adopts him. Moses grows up in luxury in the pharaoh's palace. On becoming a young man, however, he kills an Egyptian for beating a Hebrew slave, and must flee into the wilderness, where he lives as a shepherd for more than 40 years.

Exodus

describes the Hebrews' escape from Egypt. It was probably written in the sixth century BC in Babylon.

Then, God tells him that he has been chosen to lead the Hebrews from slavery in Egypt to the promised land of Israel. Moses goes to the pharaoh and asks him to set the slaves free, but the Egyptian ruler refuses – a decision he will come to regret. Soon after, God's first plague strikes the Egyptian kingdom: the Nile's waters are poisoned

and turn red like blood.

However, pharaoh refuses to yield and so God sends another plague. This time, a multitude of frogs climbs up from the Nile and invades the homes of the inhabitants. Even the pharaoh's palace is filled with frogs. No sooner have the frogs gone than lice begin infesting people and animals. Pharaoh, however, is still steadfast in refusing Moses's pleas. A plague of flies is next, followed by an epidemic among the kingdom's cattle, donkeys and sheep. Then the inhabitants become sick with oozing boils. Death is everywhere as the hard-pressed Egyptians are hit by hailstorms that destroy most of the harvest before the

sky is filled with swarms of greedy locusts that eat what little remains. As God's ninth plague plunges the kingdom into darkness for three days, the pharaoh finally relents and allows the Hebrews to leave, but only if they leave their livestock in Egypt. Moses refuses, and a final plague strikes Egypt: all firstborn children must die.

"And there shall be a great cry throughout all the land of Egypt, such as there was none like it, nor shall be like it any more," states the book of Exodus, which relates the story of the plagues and the Hebrews' escape from Egypt.

The book's great cry also sounds from the palace: the heir to the throne is dead. The pharaoh finally gives up any claim over the Hebrews, who are free to leave Egypt.

But the Egyptian ruler soon reverses his decision and sends his warriors after Moses and his people. On the shores of the Red Sea, just as the Egyptian forces are catching up, God tells Moses to lift his staff, which miraculously parts the waters, allowing the Hebrews to safely cross. Once Moses's people are safely ashore, the waters surge back, drowning pharaoh's army who were following through the parted river.

MODERN RESEARCH

In the nineteenth century, archaeologists set out to trace the events of the Bible. For example, in 1883, the Swiss archaeologist

According to the Old Testament, the Hebrews were enslaved by the Egyptian pharaoh. But archaeological evidence for this period is lacking.

WAS EGYPT CURSED?

According to the Old Testament, God visited ten plagues on Egypt. Modern researchers have tried to offer a scientific explanation for the torments suffered by Egypt's inhabitants.



PLAGUE #1: NILE TURNED TO BLOOD

■ **Bible:** "Moses and Aaron did as the Lord commanded; and he lifted up the rod, and smote the waters ... in the sight of Pharaoh ... and all the waters in the river were turned to blood."

■ **Science:** A period of unusually hot weather fed a type of algae that coloured the water red and released toxins that killed the fish.

PLAGUE #2: FROGS

■ **Bible:** "And the river shall bring forth frogs abundantly, which shall ... come into thine house, and into thy bedchamber, and upon thy bed, and into the house of thy servants, and upon thy people, and into thine ovens, and into thy kneading troughs."

■ **Science:**

When the fish in the Nile died, the frogs' natural enemies disappeared. The frogs fled the poisoned river and went inland to find food. The frogs were probably one of the species that lays hundreds of thousands of eggs.



**PLAGUE #3: LICE**

■ **Bible.** "And the Lord said ... Stretch out thy rod, and smite the dust of the land, that it may become lice throughout all the land of Egypt."

■ **Science:** When the frogs fled the stinking red river and went in and to find food, it gave the insects free rein around the poisoned Nile, and the population grew drastically.

PLAGUE #4: FLIES

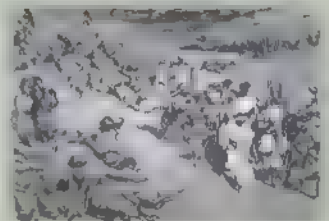
■ **Bible:** "If thou wilt not let my people go, behold, I will send swarms of flies upon thee, and upon thy servants, and upon thy people, and into thy houses: and ... the ground whereon they are."

■ **Science:** Like the lice, the population of flies exploded.

**PLAGUE #5: CATTLE**

■ **Bible:** "If thou refuse to let them go ... Behold, the hand of the Lord is upon thy cattle which is in the field, upon the horses, upon the asses, upon the camels, upon the oxen, and upon the sheep there shall be a very grievous murrain [death, esp. by infectious disease]"

■ **Science:** Insects from the previous plagues may have spread diseases among domestic animals. Science suggests that the animals were probably affected by African horse sickness or bluetongue.



In Syria, archaeologists excavated a mural from the second century BC showing the Jews' flight from Egypt, originating from an early synagogue.

> Édouard Naville headed for the Egyptian city of Tell el-Maskhuta, which he believed to be built on the biblical city of Pithom. His dig found the remains of an ancient city wall and a temple, but modern excavations of the site have revealed that the buildings were erected as late as the seventh century BC, meaning it couldn't be Pithom.

Archaeologists have found traces of Hebrews in the eastern part of the Nile Delta, but believe it's unlikely that they were the ones led from slavery. In fact, pottery shards and clay seals there suggest that they were Israelite tribes who had come from Canaan and went on to rule in the Wadi Tumilat area. Some even equate the Hebrews with the Hyksos people who invaded and occupied northern Egypt.

Archaeologists have also used the pottery to determine that these Hebrews left the delta in the seventeenth century BC.

PAPYRUS: THE NILE BECAME BLOOD

Researchers have come across only a few Egyptian sources that support the idea that the Bible's stories unfolded in ancient Egypt. One of them is the Ipuwer Papyrus, which was written in the thirteenth century BC, but is based on an older poem. The literary work describes a period of chaos, famine and death in Egypt, including the Nile turning blood red.

"Indeed, the river is blood, yet men drink of it. Men shrink from human beings and thirst after water." Ipuwer also describes slaves leaving their masters. Yet many Egyptologists are sceptical that the text should be linked to the events of the Bible, not least because other parts of the poem contradict the biblical narratives.

Another source is the Tempest Stele, erected by Ahmose I in the sixteenth century BC, that describes a remarkable storm ravaging Egypt. While a text from the reign of Seti II (1200-1194 BC), known as Papyrus Anastasi V, describes slaves fleeing along a very similar route to that taken by the Bible's Hebrews. Israel is also

mentioned on a monument erected by Merenptah, who ruled in 1213-1203 BC: "Israel is laid waste, bare of seed". It states "Israel is laid waste, bare of seed". But no source provides conclusive evidence.

Other scholars have approached the events of the Bible differently. For example, the two specialists in epidemiology and diseases John S Marr and Curtis Malloy have tried to identify natural phenomena that are comparable to the events that affected Egypt, and thus provide a probable explanation for the ten plagues.

The pair postulated that algae may have been responsible for turning the Nile into a

stinking red channel. The specialists knew of a saltwater algae that could turn water red and poison fish, but the pair wasn't aware of any freshwater algae that could do the same thing. However, during their research, an environmental disaster in North Carolina provided the answer: after a period of unusually hot weather, millions of fish died with large, open flesh wounds and the rivers turned red. The fish had died from toxins released by *Pfiesteria* algae, which feed on fish while they

PLAGUE #6: BOILS

■ **Bible:** "They took ashes of the furnace and Moses sprinkled it ... and it became a boil breaking forth ... upon man, and upon beast."

■ **Science:** The Egyptians may have died of the disease glanders, spread by insects. Others believe that volcanic ash caused rashes.



PLAGUE #7: HAIL

■ **Bible:** "Upon every man and beast which shall be found in the field ... the hail shall come down upon them, and they shall die."

■ **Science:** Scientists in recent times have observed hailstorms of this kind in the Middle East, so a violent storm like this probably also affected people in ancient Egypt.

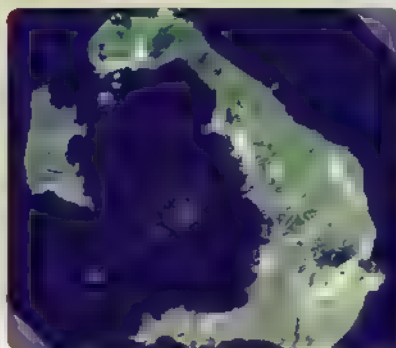


PLAGUE #8: LOCUSTS

■ **Bible:** "If thou refuse to let my people go ... tomorrow will I bring the locusts ... And they shall cover the face of the earth ... and they shall eat the residue of that which remaineth unto you from the hail, and shall eat every tree which groweth for you out of the field."

■ **Science:** Researchers believe that the desert locust population grew dramatically at this time. Large swarms of these voracious insects arrived to consume what little remained of the Egyptian harvest.

MEANWHILE IN GREECE



ASH FROM A VOLCANIC ERUPTION REACHED EGYPT

Between 1627 and 1600 BC, the Greek island of Thera (now known as Santorini) was the site of one of the most powerful volcanic eruptions in world history. The ash from the eruption drifted all the way to Egypt, 700 kilometres away. This has led some scholars to link the eruption with the ten plagues of the Bible. According to the Old Testament, the ninth plague made the sky dark, which could have been caused by the ash cloud. The eruption wiped out the Minoan culture on Thera, covering entire cities with a 60-metre-thick layer of ash.

enemies and the population exploded. This would be especially likely if a species like the Bufo toad, which lays hundreds of thousands of eggs, played a part. Unable to feed at the toxic river, the frogs went inland, giving insects free rein on the bankside.

The pair suspects that the diseases that first affected the Egyptians' livestock and then the inhabitants themselves may have been spread by insects from the third and fourth plagues. And the powerful hailstorms of the seventh plague are not particularly unusual in the Middle East, according to the two researchers.

Marr and Malloy then immersed themselves in the world of locusts to find the species that could have ravaged Egypt in the manner suggested by the Bible. The researchers believe that the most likely candidate is the desert locust, whose numbers can grow explosively in the right conditions. This species of locust is also known to form large swarms and destroy everything in its path.

The tenth plague, in which all the Egyptians' firstborn children die, has proved to be the greatest mystery. Some academics have posited that the infant deaths were a result of the hardship caused by the first nine plagues, others have pointed to diseases such as anthrax. All the

researchers agree that the deaths couldn't only have been suffered by the firstborn children, however. They are convinced that other children must have died, too.

For their part, Marr and Malloy came to the conclusion that the deaths were connected to the plague of locusts. They believe that as the locusts swept over the Egyptian fields, the kingdom's farmers probably tried to save their remaining crops by moving them to grain stores. The grain was still damp after the hailstorms, however, which would have made it prone to mould. The pair thinks that the harvest was attacked by fungi, which was fed in part by locust excrement. When eaten, the fungi emitted toxins that poisoned the most vulnerable in the community: the children.

Researchers have also tried to find evidence of the Hebrews' likely escape route – including where Moses crossed the Red Sea. One theory is that the water was pushed away by a strong, sustained wind. Even today, the Red Sea's water level can drop by up to 2.5 metres due to wind. But some question whether the Hebrews crossed the Red Sea at all, suggesting that they may have traversed Shihor on the Nile Delta, where the Egyptian army could have been hit by a tsunami following a volcanic eruption in the Mediterranean. ■

are still alive. Scientists now believe the same algae could have affected the Nile in ancient times. Other theories suggest that the Nile changed colour because reddish soil was washed into the river, or a tsunami filled the Nile with saltwater that caused red algae to bloom and the fish to die.

THE PLAGUES WERE CONNECTED

Marr and Malloy claim that the ten plagues should be seen as a series of interconnected natural phenomena, with one plague triggering the next. When the fish disappeared, frogs lost their natural

PLAGUE #9: DARKNESS

■ **Bible:** "And Moses stretched forth his hand toward heaven; and there was a thick darkness in all the land of Egypt for three days. They saw not one another, neither rose any from his place for three days."

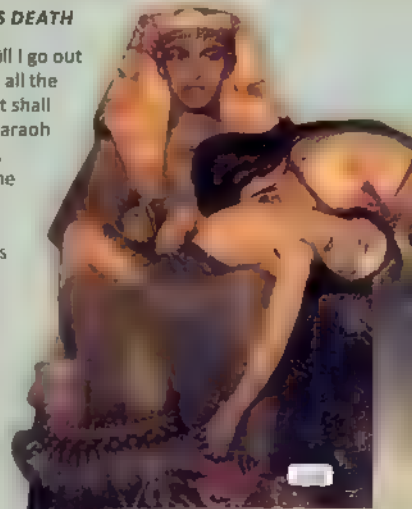
■ **Science:** One theory is that the swarm of locusts may have blocked the sun. Others suggest that the cause was a cloud of volcanic dust.



PLAGUE #10: FIRSTBORN'S DEATH

■ **Bible:** "About midnight will I go out into the midst of Egypt. And all the firstborn in the land of Egypt shall die, from the firstborn of Pharaoh that sitteth upon his throne, even unto the firstborn of the maid-servant that is behind the mill."

■ **Science:** When the locusts ravaged the fields, the Egyptians tried to save the grain by putting it in grain stores. But the grain was not dry and was therefore attacked by fungus that poisoned the children.





ROYAL INCEST

2575-30 BC

In the tomb of the famous Pharaoh Tutankhamun lay the mummified remains of two underdeveloped fetuses. Genetic defects caused by inbreeding were the most likely cause of the fetuses' premature births. Tutankhamun himself suffered from debilitating disabilities as a result of an ancient tradition among Egyptian royalty: the pharaohs married their sisters, half-sisters and even their daughters.

2575-30 BC

Circa 2575 BC
Pharaoh Khufu is born, the son of half-siblings.



1323 BC
Tutankhamun dies aged 19. Inbreeding is probably one of the causes.

1279-1213 BC
Ramesses II is on the throne. His favourite wife is also his sister.

301 BC
The Ptolemies take power and continue the royal custom of incest.

30 BC Cleopatra VII, the last Ptolemaic ruler, dies. During her life she married two of her brothers.

575 > 1323 > 1279 > 305 > 30 >

Suffering from malarial fever and a painful femoral fracture, the divine boy king, Tutankhamun, breathed his last at only 19 years old, in the year 1323 BC. He left behind a wife – and a half-sister. His young queen, Ankhesenamun, was not only united with her husband in marriage – they also shared the same royal blood. King Tutankhamun and Queen Ankhesenamun were both children of the late Pharaoh Akhenaten. During his reign, he had turned Egypt upside down and shocked the population by abolishing the kingdom's traditional polytheism in favour of a single god, Aten.

But no one raised an eyebrow at the many intermarriages of the royal family. It was not only a custom but also to some extent expected for royalty to marry within their family, so that pharaohs married their half-sister, sister or even their own daughter.

Tutankhamun and Ankhesenamun therefore came from a family in which the blood flowing through its veins had been inbred for generations. Gradually, the inbreeding became so extreme that the young couple found it difficult to continue

the bloodline. Ankhesenamun became pregnant at least twice, but all the evidence points to the fact that both pregnancies ended in tragedy – the babies were apparently born prematurely and didn't survive. According to modern Egyptologists, the two mummified foetuses found in Tutankhamun's burial chamber in 1898 are most likely the result of Ankhesenamun's miscarriages, caused by inbreeding. Both of the little mummies were girls – one six to seven months old, the other younger.

Egyptian
medics
used bottles of
pills with
prescriptions on
them – just like
modern doctors

THE BOY KING LIMPED

The dead foetuses are one indication that something was wrong in the 18th Dynasty. Another obvious sign is that King Tut, whom his people saw as a strong and mighty man, was in fact weak, sick and crippled when he died as a 19-year-old. Inside the beautiful, gold-plated sarcophagus that was later found in Tut's burial chamber lay a teenager who had struggled with health problems since birth. Archaeologists found 130 staffs in the boy king's tomb, like those Tutankhamun is seen with in many of the beautiful images that were painted of him. Outwardly, the sticks were a symbol of his power, but the truth is that he couldn't walk without something to lean on.

The young king suffered from a rare form of necrosis – a disease that slowly breaks down cells and tissue, and can cause dangerous infections. In one foot, a toe bone was missing, and other parts of the foot were slowly being eaten away by the disorder. This is probably why he unlike other pharaohs – was often depicted



The man behind the famous gold mask probably had a disability, caused by inbreeding.

sitting, even when hunting. Tutankhamun's legs simply couldn't carry him for very long. His face was scarred, too, probably by a minor cleft lip. As the young king's vulnerable body was further afflicted by a femoral fracture and malaria, it became, according to academics' theories, more than it could bear.

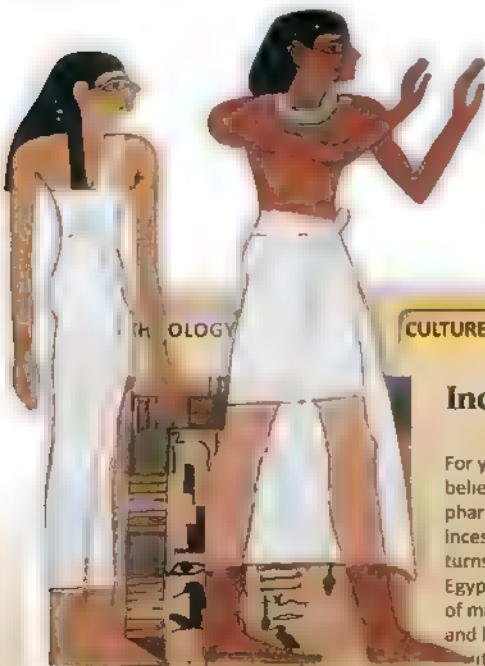
Analysis of DNA from the royal family's mummies has shown that King Tut was the son of a pair of siblings. His royal father, like all pharaohs, had a whole court of wives. The most famous was the beautiful Nefertiti, who was neither Akhenaten's full nor half-sister. It was one of his other wives, an unnamed woman, who became the mother of Tut.

Tutankhamun was fortunate to have been born into Egypt's privileged royal family, but he was less lucky with the genes it bequeathed him.

INCEST DESTROYED 18TH DYNASTY

Over centuries, the Eighteenth Dynasty dug its own genetic grave. For generations, siblings – mostly half-siblings – married each other. The female pharaoh Hatshepsut, for example, who ruled 1479-1457 BC, wed her half-brother, Thutmose II. However, there's no evidence that either the couple or their children suffered from genetic defects or had to go hunting in a horse-drawn chariot, as Tutankhamun did.

Pharaoh Akhenaten, on the other hand, was long suspected of suffering from Marfan syndrome – a genetic disease of the connective tissue that, among other things, results in a thin, elongated face, long limbs, a sunken chest and womanly hips and stomach. The many statues of Akhenaten show a somewhat peculiar-looking king, with a long, narrow face, small pot belly, long limbs and broad hips. However, scientific research refutes the theory that Akhenaten suffered from the syndrome,



Incest was rife among population

For years, Egyptologists believed that only pharaohs entered into incestuous unions, but it turns out that ordinary Egyptians were in the habit of marrying their sisters and brothers, too. Possibly it was to prevent

disputes over family property or to avoid paying an expensive dowry to in-laws. Or the marriages might merely have been an attempt to imitate the customs of their exalted royalty and gods by wedding within the family.



Court artists produced a wealth of beautiful paintings of the relationship between Tutankhamun and his wife, who was also his half-sister. But they didn't ignore the stick. Tutankhamun probably had a disability.

“When Ramesses’s beloved Nefertari died, the pharaoh married their daughter”

>> because there’s nothing in his mummy’s DNA to suggest it. His distinctive looks were probably down to the way artists of the day portrayed their divine ruler. One theory about his appearance suggests that he wanted to have both a male and a female side, just like the creator god he worshipped – the sun god Aten.

Despite the fact that Akhenaten himself was apparently free of genetic defects, he didn’t do much to prevent his children suffering from the unfortunate consequences of incest. Tutankhamun’s father wasn’t content with having a child with his sister. He also married his two daughters, Meritaten and Meketaten, and some even believe he married his mother, Tiye. He was possibly even married to his young daughter Ankhesenamun before she became the wife of Tutankhamun, after the death of her father.

TRADITION OF ROYAL INCEST

Today, the Eighteenth Dynasty is known as one of the most inbred in Egyptian history, but the custom of somewhat hazardous heritage among the kingdom’s royals goes way back. One of the first accounts of royal sibling matrimony can be found in the Fourth Dynasty (2613-2494 BC), when

Pharaoh Khufu (aka Cheops) reigned – the man behind the Great Pyramid, which was the largest in Giza. When Khufu wasn’t cracking the whip over his

builders, he was busy with his first wife, Meritites, who happened to also be his sister or half-sister. Khufu’s parents reportedly had kindred blood in their veins, too. Pharaoh Sneferu and his wife Hetepheres were both the children of Pharaoh Huni, who

was thus both Khufu’s maternal and paternal grandfather.

Another famous pharaoh who continued the tradition of incestuous marriage is the mighty warrior king Ramesses II, who ruled from 1279 to 1213 BC. It’s believed that Ramesses’s father, Seti I, was also the father of Ramesses’s favourite wife, the breathtakingly beautiful Nefertari, whom he married when they were in their teens.

When Ramesses’s beloved Nefertari died, the pharaoh married their daughter, Meritamen Bintanath, another of the pharaoh’s daughters, whose mother was his second wife, Isetnofret, also ended up becoming her father’s wife. Egyptologists believe she gave birth to at least one child

INBREEDING STRATEGY BACKFIRED

For the ruler of a mighty kingdom such as Egypt, it could be a smart move to take his sister or half-sister as a wife. Incestuous marriages helped to keep power in as few hands as possible – those of the pharaoh’s own family. If the king married a woman from outside the royal family, he risked disputes with his in-laws and other members of the new queen’s clan, who may want to get closer to the seat of power.

Moreover, in Egypt, marrying within the family would avoid diluting the royal blood. The pharaohs were considered demigods, and it could be difficult to find a suitable mate when one of the criteria was that your future spouse had to be related to divinity. In the long run, however, incestuous unions were not a wise move. When people who are closely related have children, there’s an increased risk of the

The famous Khufu, being visited here by his mother, was the result of a marriage between half-siblings. He himself then went on to marry his sister or half-sister.

offspring having problems with genetic diseases. This is because humans are born with two sets of chromosomes, each containing the same genes, albeit in slightly different variations. When two unrelated people have children, nature is able to choose between two different versions of the same gene.

If one gene is unhealthy, the healthier version is usually selected. However, that’s not always possible when it comes to inbreeding. The closer the parents are related, the more likely they are to have similar versions of any given gene.

If that gene isn’t healthy on the mother’s side, there’s a big risk that it won’t be healthy on the father’s side, either. In such a situation, nature has no choice but to pass on the harmful gene. In the long run, this can lead to disabilities or learning difficulties. Inbreeding can also result in a weakened immune system, so some Egyptian royal offspring had a hard time

“One of the first accounts of royal sibling matrimony can be found in the Fourth Dynasty.”

EYEWITNESS

EBERS PAPYRUS / Unknown author, 1550 BC

PHaraohs’ CURE FOR BLOODSHOT EYES



“Two clay vessels in one put powdered fruit-of-the-dompalm and milk-of-a-woman who has borne-a-son. In the other cow’s milk. Keep moist. In the morning bathe both eyes from the fruit-of-the-dompalm.”

Next wash the eyes with the cow’s milk four times for six days.”



protecting themselves from all sorts of diseases.

BAD ROLE MODELS

The ancient Egyptians wouldn't have had a clue about any of this. They probably got their views on matrimony from their gods, whom they saw as role models. According to Egyptian mythology, the gods, like pharaohs, had difficulty finding worthy spouses. So they married each other. The mother goddess Isis, for example, shared a marriage bed with her brother, Osiris, god of the underworld, until he died and was sent to rule over the realm of the dead. Then Isis wed her son, Horus.

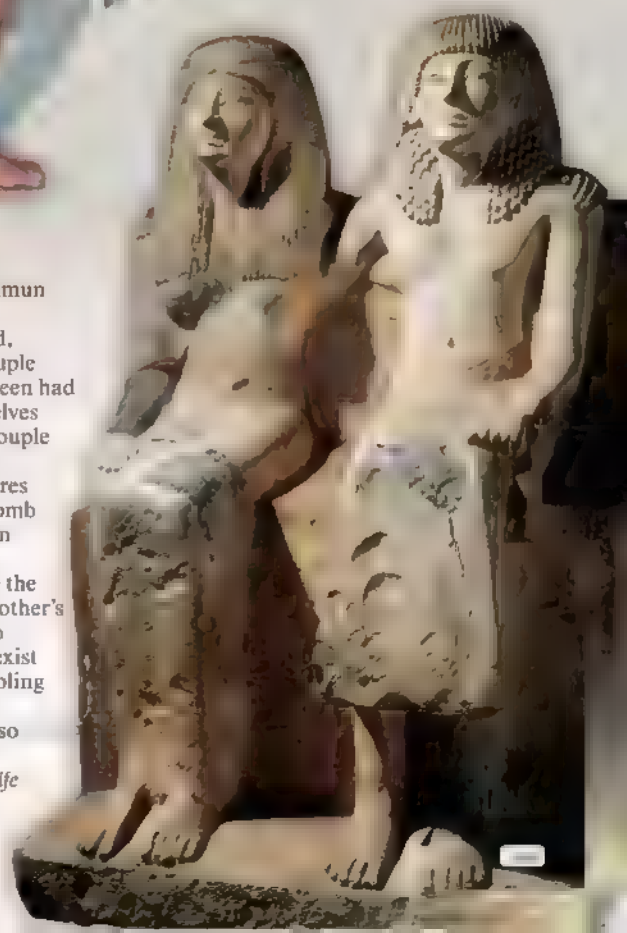
However, the story also says that the two gods, Isis and Osiris, loved each other. Their marriage was thus the result of more than just cold-hearted, strategic considerations. The same appears to have

been true when it came to Tutankhamun and Ankhesenamun.

During their reign, they appeared, at least outwardly, to be a young couple happily in love. King Tut and his queen had beautifully carved images of themselves made on temple walls, depicting a couple that seemed to be very much in love.

One of the many beautiful treasures Egyptologists found in King Tut's tomb is a casket, on the lid of which Queen Ankhesenamun is seen giving her husband a bouquet of flowers, while the two apparently look deep into each other's eyes. This has led some historians to believe that genuine love really did exist in some of the ancient Egyptians' sibling marriages. Others believe that these unions were seldom consummated, so

Pharaoh Ramesses the Great's beloved wife Nefertari was also his half sister.



Egypt's last royal family, the Ptolemies, who were of Greek origin, continued the custom of incest. Ptolemy II and Arsinoe II were both siblings and a married couple

> shouldn't be compared with modern-day concepts of marriage. Rather, they were a symbol of the strong bond between Egypt's supreme rulers: brother and sister, father and daughter, king and queen

HAREMS OFFERED MORE

Genuine marriages or not, different rules applied to male and female Egyptian royalty. A male pharaoh might have wanted to marry a woman of non-royal blood, and he might have also liked a princess from abroad. Such princesses might have been offered to the ruler as an offering of friendship from a foreign monarch, or they might have been taken as booty. Occasionally, pharaohs married Egyptian non-royals - a famous example being Akhenaten's first wife, Nefertiti.

Often, however, so-called commoner women ended up in the pharaoh's harem, which could include hundreds of concubines who spent most of their lives within the palace walls, while the first wife and other favourites were allowed to accompany the pharaoh to banquets and on trips abroad. The harem also served as a kind of kindergarten for the women's many children - some of whom would almost never get the chance to meet their father; after all, even a demigod can only cope with being husband to a limited number of women.

While male royals might have been able to wallow in more concubines than they could possibly handle, far stricter rules applied to female Egyptian royalty. It was the custom that a princess could only marry a man of the same rank as herself or higher. Often, therefore, there was no other option than to marry either her full or half-brother, or even her father. A harem was completely out of the question.

MARRIED AND KILLED THE FAMILY

The tradition of intermarriage within the royal family was strong throughout ancient Egypt's history, not least in the kingdom's last dynasty, that of the Ptolemies, even though they didn't originally come from Egypt. The Ptolemies took power in 323 BC, when the famous Macedonian conqueror Alexander the Great left the

country that he'd invaded to one of his faithful generals.

As a Greek, Ptolemy I was not brought up in the Egyptian custom of incestuous marriage, but his family was soon influenced by the natives. The royal

Ptolemies arranged marriages between siblings and half-siblings, as well as between fathers and daughters.

However, there is no clear evidence of the harmful effects of incest, as was seen in the 18th Dynasty - although there are indications that some of the Ptolemies did have a rather

unusual appearance.

For example, during his reign, Ptolemy VIII (born 182 BC) was known as Physcon

Fatty. The overweight pharaoh liked to indulge himself more than was good for him at royal banquets. That didn't mean, however, that he didn't also take part in the familial intrigues for which the Ptolemies were known. In 144 BC, Physcon married his sister Cleopatra II, then later seduced

his wife's daughter from a previous marriage - and his own niece - Cleopatra III. After a popular uprising in the governing city of Alexandria, he fled with Cleopatra III and their joint children, while Cleopatra II stayed behind and appointed her 12-year-old son, Ptolemy Memphites, as the new pharaoh.

The story doesn't end there, however, because when Physcon managed to regain power a few years later, he reportedly managed to get his hands on the newly proclaimed pharaoh; Ptolemy Memphites was chopped into pieces and sent to his horrified mother.

It was neither less bloody nor less complicated for Physcon's successors, who continued to marry and murder members of their own family.

Egypt's last pharaoh, Cleopatra VII, was possibly the result of her father's marriage to a sister or cousin, and in her short life, Cleopatra managed to both go to war with one brother and perhaps even murder the other - after first being married to them both. ■



36 parts

was how the Egyptians divided the human body. Each part had its own god as protector.

ROYAL INBREEDING AROUND THE WORLD

While matrimony between close family members is highly taboo in almost every culture, there have often been different rules for royalty. Marriages between cousins – and even brothers and sisters – were supposed to strengthen royal lines, but it had disastrous consequences at times.



WOULDN'T SHARE POWER

- **Where:** Inca Empire, Peru
- **When:** 13th-16th century
- While the 15th-century Incas subjugated a multitude of other races in South America, they also cultivated a tradition of incest to keep power restricted to the royal family. For example, the Incan ruler Huayna Capac (right), who ruled from 1493 to 1527, had a son, Huascar, with his sister



EUROPE'S ROYALS BECAME STERILE

- **Where:** Europe
- **When:** Until the 20th century
- The Spanish House of Hapsburg suffered a similar fate as Egypt's Eighteenth Dynasty. Its last member, King Charles II, who died in 1700, couldn't talk until he was four, couldn't walk until he was eight, had trouble

chewing his food, and was impotent – probably because of the marriages between cousins that had long been prevalent among European royalty. The French Bourbon dynasty, the Prussian House of Hohenzollern, which ruled Berlin until 1918, and the Danish and British royal houses all had similar rules on cousins marrying

Interbreeding meant that King Charles II of Spain suffered from both physical and mental disabilities

REFORMER KING MARRIED HALF-SISTERS

- **Where:** Thailand
- **When:** Until the 20th century
- Thailand's King Rama V, aka Chulalongkorn or Phra Chula Chom Klao, is famous as the man who reformed his country based on the Western model. Privately, however,

he stuck to tradition. The king had more than 70 children before his death in 1910, some conceived with the half-sisters to whom he was married. The vast majority of his offspring, however, were born of Chulalongkorn's many consorts and concubines.



King Chulalongkorn liked to pose with his many children, several of whom had his half-sisters as their mothers.

SHOCKED MISSIONARY

- **Where:** Hawaii
- **When:** Until the 19th century
- When missionary Hiram Bingham arrived in Hawaii in 1820, he discovered, to his horror, that the royal family blatantly practised inbreeding. Although the Pacific islands' royal family eventually accepted Christianity and its prohibition of incest, the tradition continued in secret. King Kamehameha III, for example, who ruled until 1854, couldn't keep his hands off his sister, Princess Nahi'ena'epa. The two continued to sleep with each other for many years.



Hawaii's King Kamehameha III happily went to bed with his sister





EGYPT'S LAST PHARAOH

69-30 BC

Cleopatra VII grew up in a family riven by bitter power struggles for control of an Egyptian empire in freefall. When it was her turn to take the stage as female pharaoh, Cleopatra was ready and willing to use every conceivable trick to hold on to the throne. Using her beauty and keen political acumen, she sought the support of Rome's most powerful men to realise her plan to create a new Greater Egypt – a vision that was just one naval battle from a stunning success.

69-30 BC

69 BC Princess Cleopatra is born.	51 BC She becomes co-ruler with her younger brother.	49 BC Civil war breaks out in Rome between Julius Caesar and his rivals.	48-47 BC Caesar helps Cleopatra in Egypt.	44 BC She loses her ally when Caesar is assassinated.	41 BC Cleopatra seduces a new Roman, Mark Antony.	31-30 BC Cleopatra and Antony lose a war with Caesar's adopted son, Octavian, and both commit suicide.
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9 > 51 > 49 > 48 > 44 > 41 > 31 >

Under cover of twilight, a figure snuck up to the mighty palace that housed Caesar. He carried a rolled-up blanket in his arms and was permitted to pass the armed guards under the pretext of bringing a gift to the powerful general. Within the safety of Caesar's rooms, the man dropped his bundle at the feet of the Roman. Out rolled a young woman with dark hair and olive skin, a soft white fabric – traditional Greek dress – draped around her body. To Caesar's astonishment, he found himself meeting the 18-year-old Cleopatra for the first time. She'd been smuggled into his room by a loyal supporter, the Sicilian merchant Apollodorus. Cleopatra had come to win Caesar's favour through her renowned charm and wit. The Roman, 30 years her senior, was an important part of her plan to become Egypt's sole ruler.

The Greek historian Plutarch, who lived well over one hundred years after Cleopatra, told the story of this

Cleopatra's father was nicknamed "Auletes" because he loved to play the "aulo" – the flute. Some, however, believe that the nickname was due in part to the fact Ptolemy had chubby cheeks like those of a pipe-player.

fateful encounter. The charm offensive was to safeguard Cleopatra's survival in a family that had a reputation for fierce power struggles that ended with them killing each other. It would also help ensure her family, the Ptolemies, would continue to rule over an independent Egypt.

BANKRUPT FATHER FLED TO ROME

Cleopatra's family had ruled Egypt for three centuries, partly thanks to Alexander the Great. The famous Macedonian king conquered Egypt in 332 BC, and on his death bed left the country to his childhood friend and bodyguard, the general Ptolemy I. It marked the beginning of the Ptolemaic dynasty, which, despite its Greek ancestry, saw itself as a true Egyptian royal family and was hailed as such by the people.

Cleopatra's father, Ptolemy XII, came to power in 76 BC and took the name "New Dionysus" after the Greek god of wine. He embraced his new name in the form of wild parties, cultivating a cult around the decadent god with plenty of drinking, mysterious sexual rituals, and long serenades on the *aulos* [double flute].

As the court music played, the Egyptian empire crumbled. The Greeks and Egyptians constantly threatened to break their fragile ceasefire, and Ptolemy found himself paying huge sums in protection money to avoid invasion by the Mediterranean's new superpower – the Romans. They claimed that Rome had been handed Egypt in a

disputed will by one of Ptolemy's predecessors back in 88 BC.

The treasury and taxpayers bore the cost of these exorbitant bribes, but they weren't enough to satisfy the Romans. When they annexed the Egyptian province of Cyprus, the humiliation proved too much for Alexandria's rebellious citizens, who hated the Romans with a passion. Ptolemy was forced to flee to

save his neck, accompanied by one of his daughters, possibly Cleopatra.

Back in Egypt, Cleopatra's eldest sister, Berenice, took swift advantage of the situation. She immediately appointed herself female regent and married her cousin Seleucus to provide herself with a male co-ruler. However, the husband nicknamed *Kybiosaktes* [Salt Fishmonger] for his lack of hygiene failed to appeal to Berenice. Within a week of their wedding, he'd been strangled. Berenice and Cleopatra's other sister – Cleopatra Tryphaena – also vanished, while Berenice took on a new husband.

Cleopatra Tryphaena's disappearance left Ptolemy with just five children: three sisters (Berenice, Cleopatra and Arsinoe) and two boys (the future Ptolemies XIII and XIV, respectively).

FORCED TO BEG IN THE TOILET

During his exile – first on Rhodes and later in Ephesus and Rome – Ptolemy XII looked to secure Roman support for the reconquest

of his country. His efforts included begging for help from a local governor while the Roman sat on the toilet. Finally, in 55 BC, the usurped pharaoh had managed to borrow enough money to pay a Roman army to occupy Egypt on his behalf. The triumphant Ptolemy's revenge was brutal: one of his first orders was to execute the

devious Bernice and her followers.

When Ptolemy XII died in 51 BC, it was time for the 18-year-old Cleopatra and 10-year-old Ptolemy XIII to take the throne. As tradition demanded, the brother and sister married each other to share power as joint pharaohs.

Cleopatra quickly looked to outwit her younger brother, husband and co-pharaoh, who stood between her and her dream of becoming sole ruler. She'd overlooked one critical factor, however: Alexandria's manipulative and power-hungry courtiers, who skilfully exploited the boy king to advance their own political ambitions. Ptolemy's regent Pothinus whispered devious schemes into the young pharaoh's ears. A new family feud smouldered.

ROME WAS RAVAGED BY CIVIL WAR

There was also unrest in Rome. Two powerful generals – Julius Caesar and Pompey the Great – both looked to claim absolute power, and in January 49 BC, civil war broke out. Pompey feared Caesar's battle-hardened troops and hastily dispatched his son Gnaeus to Alexandria to plead with Cleopatra and Ptolemy for help.

Pompey had previously opened his doors to Ptolemy XII, so the Egyptians could hardly refuse his appeal. Gnaeus left Egypt with a large portion of wheat, 500 battle-

To win Caesar's favour, Cleopatra allowed herself to be smuggled into the Roman's chambers hidden in a rug – according to some versions of the story.

ELSEWHERE IN EUROPE

ROME'S LEGIONS MARCHED FROM VICTORY TO VICTORY

Long before Cleopatra became pharaoh, Roman legionnaires had embarked on great conquests. Power-hungry Rome had expanded its territory during the three Punic Wars fought between the Roman Republic and the Phoenician city-state of Carthage from 264 to 146 BC. It ended with Carthage's destruction and Rome's almost total domination of the Mediterranean. While Cleopatra was growing up, the Roman general and future dictator Julius Caesar conquered Gaul, extending the Roman Empire all the way to the Atlantic.



“ To Caesar’s astonishment, he found himself meeting the 18-year-old Cleopatra for the first time ”



➤ ready soldiers and 60 warships

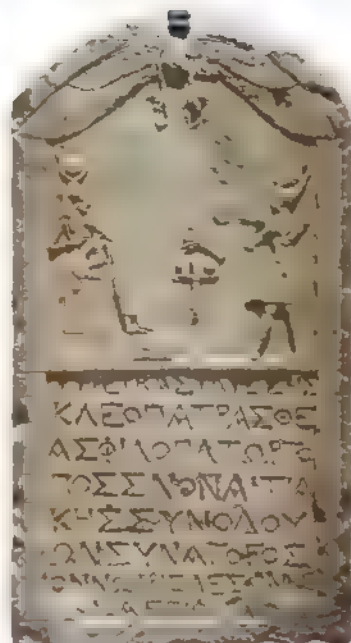
The decision to agree to Pompey's demands had been taken by Ptolemy XIII's supporters, but Cleopatra took the blame. The proud Alexandrians were enraged by their indulgent queen and her apparent attempts to please Rome.

Their anger provided the opportunity that Ptolemy's advisers had been waiting for. Fearing for her life, Cleopatra fled to Syria accompanied by her younger sister Arsinoe, where she hoped to raise an army to win back the throne.

CAESAR'S TRIUMPH

Meanwhile, Caesar and Pompey's mighty armies prepared for battle at Pharsalus in central Greece. On 9th August 48 BC the two generals faced each other. Pompey's army numbered 47,000 men, almost twice as many as Caesar's army. But Pompey was a weak general surrounded by advisers who lacked experience. In a bloody battle, the underdog Caesar won.

Despite Caesar's generous offer of forgiveness, Pompey refused to give up, and once again sought the support of the Egyptians – a fatal decision. Caesar's power was now so frightening that the Egyptian courtiers dared not defy the Roman army commander once again. When Caesar, with 10 warships and 4,000 men, called at the port of Alexandria, he was received by Ptolemy's advisers, who handed him Pompey's severed head – which, according to some reports, had been marinated for the occasion. Appalled, Caesar donned his



Cleopatra strove to be seen as a real pharaoh. This tablet depicts her performing a sacrifice to the god Isis.

Toga picta [dyed purple toga] and marched towards the royal palace.

The Roman's entry into Alexandria was not an easy one. By the time Caesar had occupied the royal palace in the evening, several had died in a popular uprising.

After suppressing the revolt, Caesar apparently felt at home in Alexandria. He sent for reinforcements and, while he waited, spent the days sightseeing and writing his memoirs.

Soon, however, Caesar personally took on an important task: to settle the dispute between Ptolemy XII's heirs. It's possible he believed a more stable Egypt would find it easier to gather taxes – and send them on to Rome.

BROTHER FELT CHEATED

Cleopatra received an invitation to meet with Caesar in Alexandria as she led her army back to Egypt. She was immediately concerned. It was likely Caesar would hand the throne to Ptolemy XIII along with Arsinoe. After all, Ptolemy had military support among the Alexandrians. On the other hand, Cleopatra was more experienced than her 13-year-old brother and was popular among the native Egyptians outside Alexandria. Unlike the rest of her family, for example, she had learned Egyptian.

Cleopatra knew she had to act fast. She also knew she needed time alone with Caesar to maximise her chances of gaining his backing. Thus, while Ptolemy prepared for his meeting with Caesar – confident that his army would keep Cleopatra at bay – she boarded a small boat and slipped along the coast into Alexandria. In the darkness on the riverfront by the palace, Sicilian merchant Apollodorus stood ready to present her as a precious, wrapped gift to the general.

Naturally, the Roman appreciated

Cleopatra's
extravagant
entrance.
The

Egyptian may have heard of Caesar's reputation as a womaniser – and if not, she had probably heard rumours of a vain man who combed his hair forwards to hide his baldness. Statues of Caesar were all designed to show off a fine head of curly hair, and it was important for him to appear well groomed. His biographer Suetonius wrote of him:

"He was so nice in the care of his person, that he not only kept the hair of his head closely cut and had his face smoothly shaved, but even caused the hair on other parts of the body to be plucked out by the roots."

Caesar and Cleopatra were in a sense enemies, but they also had much in common. Both were ambitious and proud, but also lonely and insecure. Caesar had lost his only and beloved daughter, Julia, who died in childbirth, and he suffered terrible nightmares. Cleopatra had lost most of her family and had a frosty relationship with those who'd survived. The two needed each other – if not for love, then for two other obvious reasons: Caesar needed the riches of Egypt, while Cleopatra needed Rome's protection.

When Ptolemy XIII woke to the news that Cleopatra was already with Caesar, the 13-year-old boy furiously rushed out of the palace and angrily threw his headress on to the hard stones. Soon he was on his way to Caesar, accompanied by a restless crowd. The Roman, however, did not take much notice of the assembled Alexandrians. He simply read aloud the testament of Ptolemy XII: Cleopatra and Ptolemy XIII were to rule Egypt together as before.

CIVIL WAR BROKE OUT

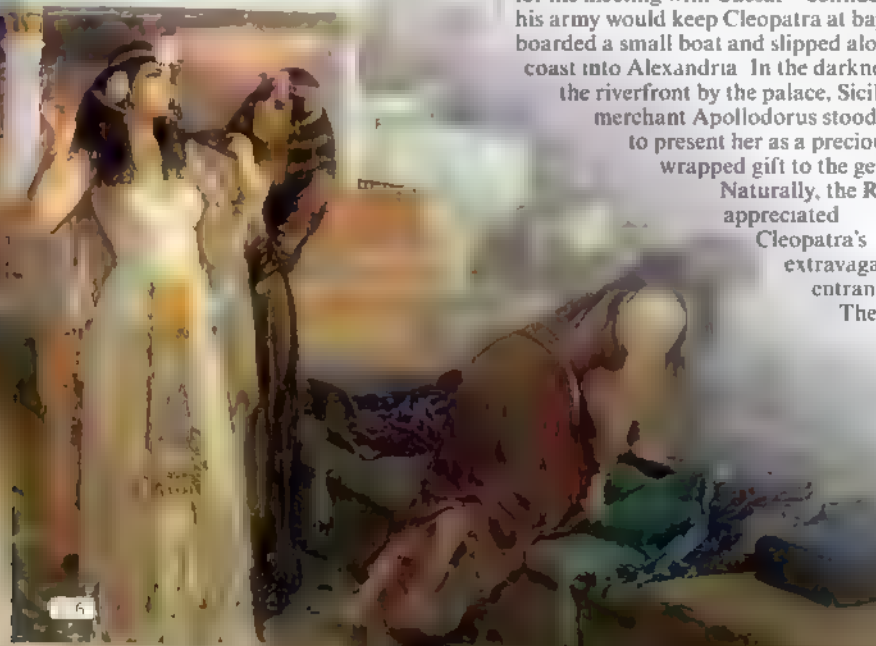
Cleopatra was now back as queen, but deep down she wasn't pleased with Caesar's power-sharing solution. If it had been up to her, the throne would be hers – and hers alone.

Her siblings were no happier, and soon Egypt also erupted into civil war, this one long in the making. On one side stood Arsinoe, crowned Arsinoe IV and Ptolemy XIII; on the other Cleopatra, supported by Caesar. Again, the Romans were victorious. Arsinoe was captured, and Ptolemy drowned as he tried to escape across the Nile in a crowded boat.

In January 47 BC, Caesar – to the great annoyance of the Alexandrian population – occupied the city for a second time with a triumphal procession. Finally, Cleopatra sat once again on the throne as pharaoh of Egypt. To appease the people, she agreed to marry once again – this time to her youngest brother, the 11-year-old Ptolemy XIV.

The marriage was purely for show, of course; the real pact she'd made with Caesar meant that Cleopatra would be sole ruler of Egypt. It was she who decided

On the temple island of Philae, Cleopatra established a cult in which she herself was worshipped as a goddess – long after her death



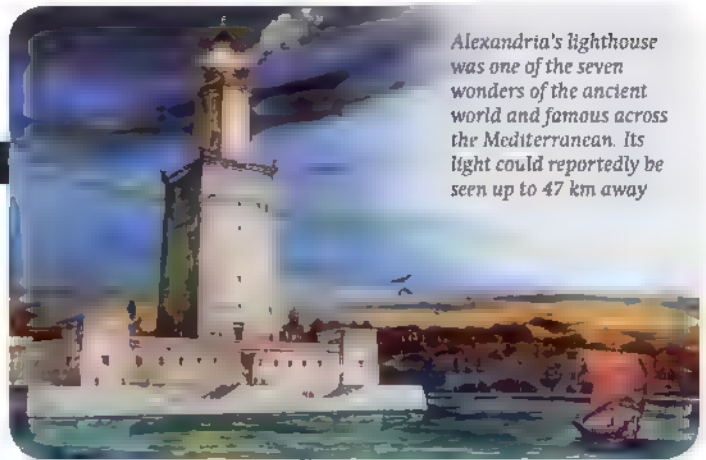
THE MOST MAGNIFICENT CITY IN ANTIQUITY

The Ptolemies governed Egypt from a bubbling, multicultural metropolis populated by enterprising Greeks, Egyptians, Macedonians and Jews.

LANDMARK SHOWED TRAVELLERS THE WAY

■ At the entrance to Alexandria's port on the small island of Pharos stood the city's towering pride and joy: the Lighthouse of Alexandria that steered sailors into Egypt's stunning capital. It was reportedly 120-140 metres high and built from marble. At its top sat huge, polished bronze mirrors that reflected a dazzling arc of

light from the lighthouse's eternally blazing fire. The tower was built by Cleopatra's ancestors between 280 and 247 BC but was reduced to rubble over a series of earthquakes in AD 956, 1303 and 1323. In 1477, the last remains disappeared beneath the medieval Citadel of Qaitbay, which still stands to this day.



Alexandria's lighthouse was one of the seven wonders of the ancient world and famous across the Mediterranean. Its light could reportedly be seen up to 47 km away.

LIBRARY WAS THE LARGEST IN THE WORLD

■ Alexandria's famed Great Library was contained within the Museum Institution, which housed the city's most distinguished scholars. Here Euclid wrote *Elements*, the doctors Herophilus and Erasistratus dissected dead prisoners, and Aristarchus suggested that the Earth

orbited the Sun. The Great Library allegedly held Aristotle's private collection of scrolls, and the story goes that anyone who visited Alexandria had to surrender his scrolls so a copy could be made. That copy was returned to the visitor – the library kept hold of the original.



The library's huge collection was lost forever when the buildings burned during a civil war in the late fourth century AD.

CITIZENS REVELLED IN DRUNKENNESS AND ADULTERY

■ Four times a year, the Alexandrians celebrated Dionysus by drinking, eating and whoring in honour of the decadent god. The city literally flowed with red wine as 95,000 gallons gushed through the streets. The large parades and processions included a purple-clad statue

of Dionysus, flat chariots piled high with gold and silver treasure, priests, lions and bulls, and women with snakes and ivy wreaths in their tangled hair. If that wasn't enough, there was also a 55-metre-long phallus with a star on its tip, marching soldiers and twin fountains spouting milk and wine.

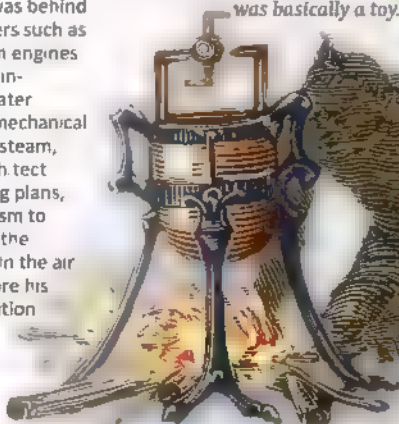


The Ptolemies exhibited their power by organising huge drinking parties.

CITY WAS FULL OF MODERN MIRACLES

■ Alexandria was ahead of its time, not least thanks to the mathematician and inventor Heron (10-70 AD). He was behind groundbreaking wonders such as automatic doors, steam engines and the world's first coin-operated system – a water vending machine. The mechanical miracles vibrated with steam, fire and water. The architect Timochares also had big plans, namely to use magnetism to make an iron statue of the deified Arsinoe II float in the air. He died, however, before his plan could come to fruition.

Heron of Alexandria invented the world's first steam engine, the Aeolian – which was basically a toy.



>> policy, and her name was always at the fore on official papers.

Cleopatra prepared for a magnificent boat trip down the Nile. It was a centuries-old tradition that the pharaohs of Egypt sailed up and down the river to be seen and hailed by the people. Soon she and Caesar embarked on a royal barge with an impressive entourage of 400 ships. After this floating demonstration of their new, powerful alliance, Caesar returned to Rome, leaving 15,000 men to protect Cleopatra. Nine months after their first meeting, Cleopatra gave birth to a son, whom she named Caesarion, "Little Caesar".

LEADING THE WAY IN ROME

In Rome, Cleopatra's new protector allowed himself to be hailed a returning hero. Victorious, his soldiers marched through the streets of Rome proudly showing off their spoils of war, which included Cleopatra's younger sister Arsinoe. The Egyptian princess was dragged through the dusty streets in chains while the city's population looked on and jeered. Luckily for Arsinoe, Caesar dared not kill her for fear of triggering a popular uprising – it was one thing to drag her through the streets, but a princess should not – after all – be publicly executed. Instead, Arsinoe was exiled to the Temple of Artemis in Ephesus, Asia Minor (modern-day Turkey).

Cleopatra soon travelled to Rome with her newborn son. She behaved like a queen in the magnificent city, holding court and inviting prominent Romans to visit her,

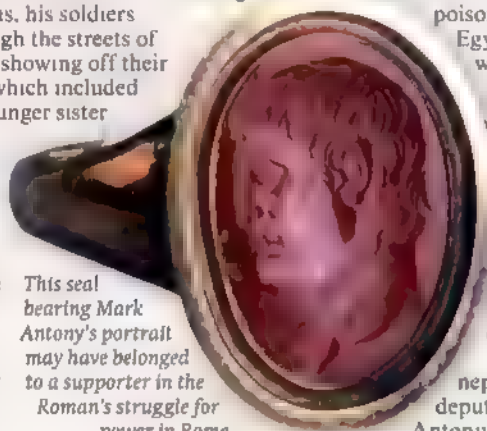
bestowing precious gifts upon them. But Cleopatra's relationship with Caesar shocked many powerful Romans, whose indignation grew at how his behaviour increasingly resembled that of an autocratic king.

Soon, whispers led to a murderous plan: Caesar must be disposed of before he became too powerful. In 44 BC, the dictator was brutally stabbed and killed after a meeting of the Roman senate.

Cleopatra had lost her protector and hurriedly returned to Egypt. She now felt threatened from all sides and was careful to keep little Caesarion close. Her brother and husband Ptolemy XIV gave her no such cause for concern. He vanished, like his

sister Cleopatra Tryphaena previously

Rumour has it that Cleopatra poisoned her brother to rule Egypt with her young son, who was now proclaimed pharaoh in his place.



This seal bearing Mark Antony's portrait may have belonged to a supporter in the Roman's struggle for power in Rome.

READY FOR THE NEXT MAN

In Rome, Caesar's death led to another civil war. Three of Caesar's men joined forces to defeat the army controlled by the dictator's assassins.

These included his great nephew Octavian, his former deputy commander Marcus Antonius (Mark Antony) and political ally Marcus Lepidus. The three allies won, and in 43 BC signed a peace treaty in which they divided the empire between them and promised to keep the peace for five years.

Antony had played a crucial role in the victory and was richly rewarded. He was given, in addition to a large portion of the Roman Empire, the right to control Egypt, which was considered Roman territory. Lepidus only managed to rule his part of

the empire for a short time before his troops defected to Octavian.

Cleopatra had followed the course of the battle from Alexandria, and it was now clear to her who she had to win over to secure the future of her country: Antony. She had heard that he was a hardy soldier who loved beautiful women and exotic luxury. This time, arriving as a mysterious, wrapped gift was not enough. Cleopatra's first encounter with the powerful Roman had to be planned to the smallest detail.

Antony, for his part, badly needed Egypt's wealth so that he could pay his soldiers to patrol his half of the Roman Empire. Cleopatra soon received several letters ordering her to meet him.

Later Roman and Greek historians were

STRONG WOMEN TOOK THE THRONE

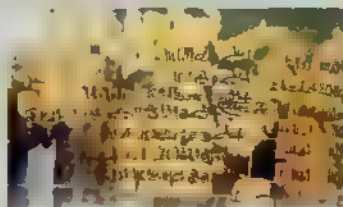
Queens and royal mothers played key roles at court throughout Egypt's history. At least three, and possibly more, rose all the way to the top and took the role of female pharaoh, long before Cleopatra made the attempt.



SOBEKNEFERU

1806-1802 BC

■ Sobekneferu, the last ruler of Egypt's Twelfth Dynasty, succeeded her half-brother/possible husband Amenemhat IV. We still know little about the first confirmed female pharaoh.



NITOCRIS

2184-2181 BC (?)

■ Nitocris is referred to by Greek historian Herodotus and is possibly also listed on the Turin King List (above), but her gender is disputed. Legend has it that, to avenge her brother's murder, she invited the killers to a banquet in a subterranean hall, which she flooded with Nile water, causing everyone to drown. She then committed suicide.

NEFERTITI

1334-1332 BC (?)

■ The beautiful Nefertiti was wife of Pharaoh Akhenaten, who reigned from 1353 to 1336 BC. Some historians believe that Nefertiti can be considered Akhenaten's co-regent, but she disappears from official papers around the year 1336 BC. There is speculation that Akhenaten's successor, the mysterious Neferneferuaten, was Nefertiti.





Throughout her life, Cleopatra had her gaze fixed on one target: a free Egypt with her at its head, even if backed by a strong man.

Antony found Cleopatra in a room adorned with purple and gold tapestries. Shortly after, he lay by her side and was served a sumptuous banquet on gold plates inlaid with precious stones. Cleopatra was dressed as the goddess of love, Aphrodite, and adorned Antony's head with vine leaves - Dionysus's symbol. It was a thinly veiled allusion to the fact that, according to legend, Aphrodite and Dionysus had met in Tarsus and fallen in love there.

Cleopatra and Antony spent the next few days together, enjoying each other's company and setting out plans for their shared future. Cleopatra would support Antony's armies, and he wanted to provide her with protection, which included giving the order to murder her last rival to the throne. Arsinoe, who was still in exile. Ptolemy XII's large flock of heirs had been reduced to a single survivor: Cleopatra.

Antony put aside his plans for war with the Parthian Empire and instead travelled to Egypt, where he amused himself at Cleopatra's lavish banquets.

eager to portray Antony as a frivolous chancer with no backbone and Cleopatra as a cunning seductress, so told a fascinating tale about how the two powers met: instead of responding to Antony's inquiries, Cleopatra prepared her navy to sail her to the city of Tarsos in Asia Minor. Here Antony was preparing for war with the Parthian Empire, which lay to the east of his territories.

Soon Antony heard rumours of a magnificent sight sailing up the Cydnus (now Berdan) River towards Tarsus: "a barge with gilded stern and outspread sails of purple", as Plutarch described it. Purple was a luxury so rare it was more expensive than gold.

"Oars of silver beat time to the music of flutes and fifes and harps", he added for

good measure. Cleopatra lay on gilded rugs under a vaulted golden canopy. She wore a multicoloured dress and black cloak to signify both Aphrodite, the Greek goddess of love, and Isis, the Egyptian goddess of the moon.

The people of Tarsus flocked from their homes to the harbour to see the mighty fleet dock with their own eyes. Flustered, Antony returned to the town square and sent the queen an invitation to dine with him that evening. Cleopatra refused. Instead, he was to be a guest on her boat.

When the Roman warlord arrived at the port at dusk, a magnificent sight awaited him. Cleopatra's boat was covered with small oil lamps that sparkled like stars, and her beautiful servants led the way with sweet-smelling rose petals. On board,

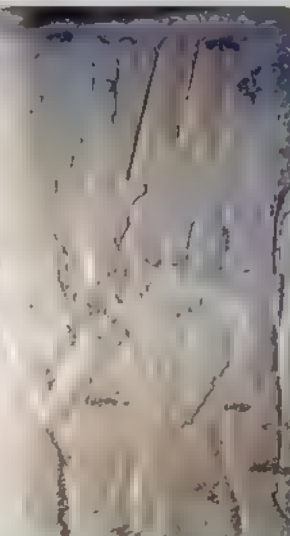
CLEOPATRA WOULD BECOME QUEEN OF THE WORLD

In the winter of 41 BC, Cleopatra and Antony were inseparable, and the queen was soon pregnant with twins. But in 40 BC, Antony had to return to Rome to make peace with Octavian, which

TWOSRET

1191-1189 BC

■ Twosret was the second royal wife of Seti II of the Nineteenth Dynasty. When he died, she became regent on behalf of his young heir Siptah, who may have been Seti's half-brother or son by a Canaanite concubine. Siptah was a sickly child placed on the throne by an important Canaanite official called Bay, and when the young pharaoh died - possibly from poison - Twosret moved quickly to take sole power. However, she was mysteriously deposed soon after.



HATSHEPSUT

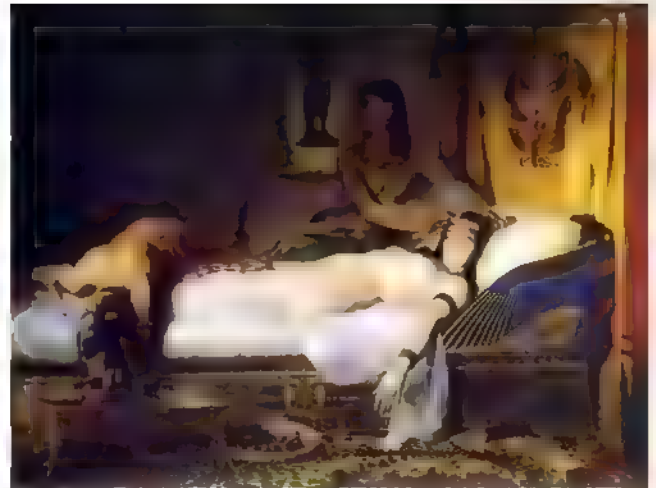
1472-1458 BC

■ Perhaps the most powerful female pharaoh in Egypt's history took power on the death of her half brother Tuthmosis II, in 1479 BC. His heir, Tuthmosis III, was only an infant, and Hatshepsut became regent. Later she was crowned pharaoh and served as Tuthmosis III's co-ruler until her death. Before her coronation, Hatshepsut was depicted in feminine forms and clothes, but after becoming pharaoh, she was portrayed (right) as a male pharaoh with skirt, headdress and even a false beard.





In the Battle of Actium, Cleopatra and her Roman lover, Mark Antony, fatefully clashed with rival Octavian – and lost



Without Antony and deprived all hope of clinging on to power, Cleopatra committed suicide. Her faithful servants followed her to the grave

>> included a marriage of convenience to Octavia, Octavian's sister, so he missed the births of his daughter Cleopatra Selene and son Alexander Helios

It wasn't until 36 BC that Cleopatra's Roman protector returned to her. Antony had suffered a crushing defeat at the hands of the Parthians, but now he was gathering together his loyal troops to create an empire with Cleopatra. Together, the two began to plan how they could occupy the world. In 34 BC, they had a third child, Ptolemy Philadelphus, and Antony divorced Octavia, angering Octavian with what would have fateful consequences

Shortly afterwards, Antony invaded Armenia. When he returned to Egypt, he bestowed on Cleopatra the title "Queen of Kings" in a mock Roman triumph, while their children each received royal titles. In addition, Antony also bequeathed Syria, Lebanon and Asia Minor to his queen

It wasn't long before Octavian heard of the couple's grandiose plans, and in 32 BC, he declared war against Cleopatra. The two former allies were now in an open battle for the Roman Empire.

A year later, Octavian, Antony and Cleopatra met at the Battle of Actium – an

historic encounter that would seal Cleopatra's – and Egypt's – fate. Cleopatra and Antony had assembled a mighty fleet of 300 Roman and 200 Egyptian warships. They sailed for Greece to meet Octavian's 400 warships and 37,000 troops, led by the skilful general Marcus Vipsanius Agrippa, at the entrance to the Ambracian Gulf

Months later, Octavian's army had sunk so many ships and killed so many soldiers that the Egyptian fleet had been halved to 230 warships with a total of 20,000 soldiers. On top of this, Cleopatra and Antony were forced to watch as malaria ravaged their forces further as food and water supplies dwindled. Many deserted

The remains of Cleopatra's and Antony's fleet were now trapped inside the Ambracian Gulf, and the situation was desperate. The only escape route involved fighting their way through Octavian's fleet. Cleopatra and Antony gathered the last of their exhausted forces and prepared for the decisive battle. But as soon as they were out on the Ionian Sea, they sailed straight into Octavian and his soldiers. Antony's army was crushed while Cleopatra escaped with 60 ships, including the boat that carried her many riches. Antony also escaped but was now a fugitive. Burdened with shame, the

"Antony was forced to flee when his soldiers refused to fight for him, and [his] fall from grace was complete."

Roman hid away on the island of Pharos, off Alexandria, refusing to see anyone

Cleopatra, on the other hand, had no intention of hiding. Her spies had discovered that Octavian had run out of gold to pay his soldiers and she planned her next move. Eventually, the crestfallen Antony left his hiding place to comfort himself with more lavish banquets, but barely a year had passed before the dreaded but inevitable – news arrived: Octavian was on his way to Alexandria

CLEOPATRA CLAIMED TO BE DEAD

This time, Cleopatra attempted mediation. She sent a messenger to Octavian, offering to relinquish her throne if he would let her children remain in power in Egypt. Octavian didn't even bother to reply. Antony was again forced to don his armour and sail out to meet his old foe.

The battle went even worse than at Actium. Antony was forced to flee when his soldiers refused to fight for him, and the once all-conquering Roman warlord's fall from grace was complete.

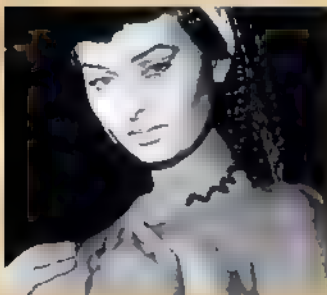
Fearing Antony's anger, Cleopatra hid in a mausoleum and sent word that she was dead. His despair at having lost his queen led to Antony attempting to fall on his sword in true Roman fashion. On hearing the news, and discovering he was still alive,

TECHNOLOGY

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Cleopatra was seen as a sex fiend

Cleopatra's image as a power-hungry "whore queen" (Propertius) was created by the Romans, and the myth quickly took root. During the Middle Ages, the author Boccaccio proclaimed her "the whore of the eastern kings", and

she was one of the cardinal sinners in Dante's *Divine Comedy*. Since then, she has been portrayed in books, art, plays and films as a beautiful and scheming woman with a huge libido – including by Sophia Loren (left) in 1953



Cleopatra had her servants pick up the dying soldier and carry him to her, where Antony died in her arms.

SNAKE KILLED CLEOPATRA

Before long, Octavian had surrounded Cleopatra's mausoleum, where she had locked herself inside. Surrounded by her gleaming treasures, she knew her days were numbered – and along with them the dream of an independent Egypt. She also knew that Octavian would want to drag her through the streets of Rome in chains, as had happened with Arsinoe. But Cleopatra had no intention of being treated like a wretched slave.

Historians are divided over what exactly happened in the mausoleum. The most popular story claims that Cleopatra ordered one last lavish gala dinner, and as part of the meal, she had a waiter bring her a basket of fresh figs – a great delicacy. In the basket lay a poisonous snake.

Cleopatra sent a short message to Octavian that she wanted to be buried next to Antony. She then let the snake sink its fangs into her soft flesh. Shortly after, she breathed her last, accompanied by her two devoted servants, Eiras and Charmain.

Octavian hurried to the mausoleum as soon as he received Cleopatra's message, but was too late. Inside Cleopatra's tomb, he found the pharaoh dead. By her side lay the dead Eiras, while Charmain was still fighting the poison and, as a last resort, trying to reposition the headdress on her mistress's head. The last queen of Egypt was gone, and with her the last Egyptian dynasty.

In the year 30 BC, Octavian, now called Emperor Augustus, proclaimed himself ruler of Egypt, and Roman soldiers destroyed the country's official documents and mutilated its monuments. For the next 500 years, Egypt was ruled by Roman officials, and Egypt's fertile lands were used to feed Rome's hungry citizens. ■

Octavian shattered Cleopatra's dream of creating the most powerful empire in antiquity. Instead it was he – now dubbed Augustus – who came to rule over a huge empire, with Egypt no more than the emperor's personal possession.

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SECRETS OF THE ANCIENT EGYPTIANS

When the goddess Isis gathered and embalmed the remains of her beloved husband, the god Osiris, and rolled his reformed body in linen, she created the world's first mummy. Embalming the dead so that the body was preserved for eternity was widespread in ancient Egypt, and the mummies of animals and humans have fascinated us ever since. Poor Egyptians were buried in the desert sands, but dead pharaohs were given magnificent sarcophagi in giant pyramids. Although the Egyptians left behind numerous hieroglyphic texts, we still don't know exactly how the pyramids were erected - just that the civilization that created them flourished for over 3,000 years.

Vivid illustrations
help bring the
past to life

Dramatic
narrative
pulls you in

Timelines offer
an overview of
the period.